



Blast 2 Sequences results

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Structure

BLAST 2 SEQUENCES RESULTS VERSION BLASTN 2.2.17 [Aug-26-2007]

Match: 1 Mismatch: -2 gap open: 5 gap extension: 2

x_dropoff: 0 expect: 10.000 wordsize: 11 Filter View option Standard

Masking character option X for protein, n for nucleotide

Masking color option Black

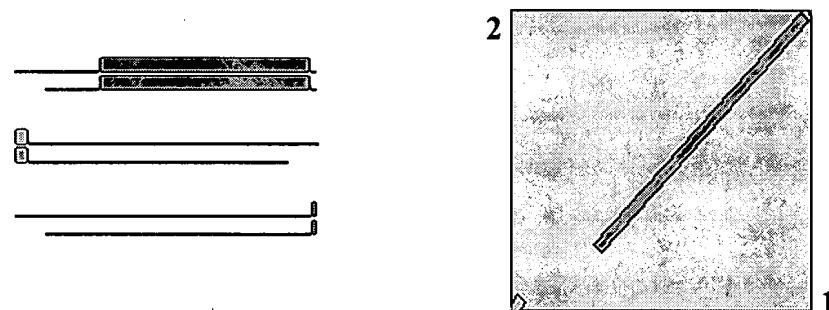
Show CDS translation Align

Sequence 1: gi|5420376|Hepatitis C virus type 1b complete genome, isolate Con1

Length = 9604 (1 .. 9605)

Sequence 2: gi|5441831|Hepatitis C virus replicon I377/NS2-3'UTR

Length = 8636 (1 .. 8637)



NOTE: Bitscore and expect value are calculated based on the size of the nr database.

NOTE: If protein translation is reversed, please repeat the search with reverse strand of the query sequence.



Score = 1.261e+04 bits (6560), Expect = 0.0
 Identities = 6646/6646 (100%), Gaps = 0/6646 (0%)
 Strand=Plus/Plus

CDS:polyprotein [Hep	809	A M D R E M A A S C G G A V F V G L I
Query	2767	CCATGGACCGGGAGATGGCAGCATCGTGCAGGGCGCGTTTCGTAGGTCTGATA
Sbjct	1799	
CDS:non-structural p	1	M D R E M A A S C G G A V F V G L I
CDS:polyprotein [Hep	829	L T L S P H Y K L F L A R L I W W L Q
Query	2827	TGACCTTGTCAACCGCACTATAAGCTGTTCTCGCTAGGCTCATATGGTGGTTACAA
Sbjct	1859	

CDS:non-structural p	20	L T L S P H Y K L F L A R L I W W L Q
CDS:polyprotein [Hep Query	849 2887	F I T R A E A H L Q V W I P P L N V R TTATCACCAGGGCCGAGGCACACTTGCAAGTGTGGATCCCCCCCCTAACGTCGG
Sbjct	1919	TTATCACCAGGGCCGAGGCACACTTGCAAGTGTGGATCCCCCCCCTAACGTCGG
CDS:non-structural p	40	F I T R A E A H L Q V W I P P L N V R
CDS:polyprotein [Hep Query	869 2947	G R D A V I L L T C A I H P E L I F T GCCGCGATGCCGTACATCCTCCTCACGTGCGCGATCCACCCAGAGCTAAATCTTACC
Sbjct	1979	GCCGCGATGCCGTACATCCTCCTCACGTGCGCGATCCACCCAGAGCTAAATCTTACC
CDS:non-structural p	60	G R D A V I L L T C A I H P E L I F T
CDS:polyprotein [Hep Query	889 3007	T K I L L A I L G P L M V L Q A G I T CCAAAATCTTGCTGCCATACTCGGTCCACTCATGGTGCTCCAGGCTGGTATAACC
Sbjct	2039	CCAAAATCTTGCTGCCATACTCGGTCCACTCATGGTGCTCCAGGCTGGTATAACC
CDS:non-structural p	80	T K I L L A I L G P L M V L Q A G I T
CDS:polyprotein [Hep Query	909 3067	V P Y F V R A H G L I R A C M L V R K TGCCGTACTTCGTGCGCGCACACGGGCTATTCTGCATGCATGCTGGTGCAG
Sbjct	2099	TGCCGTACTTCGTGCGCGCACACGGGCTATTCTGCATGCATGCTGGTGCAG
CDS:non-structural p	100	V P Y F V R A H G L I R A C M L V R K
CDS:polyprotein [Hep Query	929 3127	A G G H Y V Q M A L M K L A A L T G T CTGGGGGTCAATTATGTCAAATGGCTCTCATGAAGTTGGCCGACTGACAGGTACG
Sbjct	2159	CTGGGGGTCAATTATGTCAAATGGCTCTCATGAAGTTGGCCGACTGACAGGTACG
CDS:non-structural p	120	A G G H Y V Q M A L M K L A A L T G T
CDS:polyprotein [Hep Query	949 3187	V Y D H L T P L R D W A H A G L R D L TTTATGACCATCTCACCCACTGCGGGACTGGGCCACGCGGGCCTACGAGACCTT
Sbjct	2219	TTTATGACCATCTCACCCACTGCGGGACTGGGCCACGCGGGCCTACGAGACCTT
CDS:non-structural p	140	V Y D H L T P L R D W A H A G L R D L
CDS:polyprotein [Hep Query	969 3247	V A V E P V V F S D M E T K V I T W G TGGCAGTTGAGCCCGTCTTCTCTGATATGGAGACCAAGGTTATCACCTGGGG
Sbjct	2279	TGGCAGTTGAGCCCGTCTTCTCTGATATGGAGACCAAGGTTATCACCTGGGG
CDS:non-structural p	160	V A V E P V V F S D M E T K V I T W G
CDS:polyprotein [Hep Query	989 3307	D T A A C G D I I L G L P V S A R R G ACACCGCGCGTGTGGGACATCATCTGGGCTGCCGTCTCCGCCAGGGGG
Sbjct	2339	ACACCGCGCGTGTGGGACATCATCTGGGCTGCCGTCTCCGCCAGGGGG
CDS:non-structural p	180	D T A A C G D I I L G L P V S A R R G
CDS:polyprotein [Hep Query	1009 3367	E I H L G P A D S L E G Q G W R L L A AGATACATCTGGGACCGGCAGACAGCCTTGAAGGGCAGGGGTGGCGACTCCTCGCG
Sbjct	2399	AGATACATCTGGGACCGGCAGACAGCCTTGAAGGGCAGGGGTGGCGACTCCTCGCG
CDS:non-structural p	200	E I H L G P A D S L E G Q G W R L L A
CDS:polyprotein [Hep Query	1029 3427	I T A Y S Q Q T R G L L G C I I T S L TTACGGCCTACTCCAAACAGACGCGAGGCCTACTTGGCTGCATCATCACTAGCCTC
Sbjct	2459	TTACGGCCTACTCCAAACAGACGCGAGGCCTACTTGGCTGCATCATCACTAGCCTC

CDS:non-structural p	220	I T A Y S Q Q T R G L L G C I I T S L
CDS:polyprotein [Hep Query	1049	G R D R N Q V E G E V Q V V S T A T Q
	3487	GCCGGGACAGGAACCAGGTCGAGGGGAGGTCCAAGTGGTCTCCACCGAACACAA
Sbjct	2519	
CDS:non-structural p	240	G R D R N Q V E G E V Q V V S T A T Q
CDS:polyprotein [Hep Query	1069	F L A T C V N G V C W T V Y H G A G S
	3547	TCCTGGCGACCTGCGTCAATGGCGTGTGGACTGTCTATCATGGTGCAGGCTCA
Sbjct	2579	
CDS:non-structural p	260	F L A T C V N G V C W T V Y H G A G S
CDS:polyprotein [Hep Query	1089	T L A G P K G P I T Q M Y T N V D Q D
	3607	CCCTTGCCGGCCAAAGGGCCAATACCCAAATGTACACCAATGTGGACCAGGAC
Sbjct	2639	
CDS:non-structural p	280	T L A G P K G P I T Q M Y T N V D Q D
CDS:polyprotein [Hep Query	1109	V G W Q A P P G A R S L T P C T C G S
	3667	TCGGCTGGCAAGCGCCCCCGGGCGCGTCTTGACACCATGCACCTGCGGCAGC
Sbjct	2699	
CDS:non-structural p	300	V G W Q A P P G A R S L T P C T C G S
CDS:polyprotein [Hep Query	1129	D L Y L V T R H A D V I P V R R R G D
	3727	ACCTTACTTGGTCACGAGGCATGCCATGTCAATTCCGGTGCAGCGGGCGAC
Sbjct	2759	
CDS:non-structural p	320	D L Y L V T R H A D V I P V R R R G D
CDS:polyprotein [Hep Query	1149	R G S L L S P R P V S Y L K G S S G G
	3787	GGGGGAGCCTACTCTCCCCAGGCCGTCTCTACTTGAAGGGCTCTCGGGCGGT
Sbjct	2819	
CDS:non-structural p	340	R G S L L S P R P V S Y L K G S S G G
CDS:polyprotein [Hep Query	1169	L L C P S G H A V G I F R A A V C T R
	3847	TGCTCTGCCCTCGGGCACGCTGTGGCATCTTCGGCTGCCGTGCAACCGA
Sbjct	2879	
CDS:non-structural p	360	L L C P S G H A V G I F R A A V C T R
CDS:polyprotein [Hep Query	1189	V A K A V D F V P V E S M E T T M R S
	3907	TTGCGAAGGCAGGTGGACTTGTACCCGTCGAGTCTATGGAAACCACATAGCGGTCC
Sbjct	2939	
CDS:non-structural p	380	V A K A V D F V P V E S M E T T M R S
CDS:polyprotein [Hep Query	1209	V F T D N S S P P A V P Q T F Q V A H
	3967	TCTTCACGGACAACCTCGTCCCCCTCGGCCGTACCGCAGACATTCCAGGTGGCCCAT
Sbjct	2999	
CDS:non-structural p	400	V F T D N S S P P A V P Q T F Q V A H
CDS:polyprotein [Hep Query	1229	H A P T G S G K S T K V P A A Y A A Q
	4027	ACGCCCTACTGGTAGCGCAAGAGCACTAAGGTGCCGGCTCGTATGCAGCCAA
Sbjct	3059	
		ACGCCCTACTGGTAGCGCAAGAGCACTAAGGTGCCGGCTCGTATGCAGCCAA

CDS:non-structural p	420	H A P T G S G K S T K V P A A Y A A Q
CDS:polyprotein [Hep Query	1249	Y K V L V L N P S V A A T L G F G A Y
	4087	ATAAGGTGCTTGTCCCTGAACCGTCCGTCGCCACCCCTAGGTTTCGGGGCGTAT
Sbjct	3119	
CDS:non-structural p	440	ATAAGGTGCTTGTCCCTGAACCGTCCGTCGCCACCCCTAGGTTTCGGGGCGTAT
CDS:polyprotein [Hep Query	1269	Y K V L V L N P S V A A T L G F G A Y
	4147	S K A H G I D P N I R T G V R T I T T
Sbjct	3179	CTAAGGCACATGGTATCGACCCTAACATCAGAACCGGGTAAGGACCATCACCACG
CDS:non-structural p	460	
CDS:polyprotein [Hep Query	1289	S K A H G I D P N I R T G V R T I T T
	4207	A P I T Y S T Y G K F L A D G G C S G
Sbjct	3239	CCCCCATCACGTACTCCACCTATGGCAAGTTCTGCCGACGGTGGTGCTCTGGG
CDS:non-structural p	480	
A P I T Y S T Y G K F L A D G G C S G		
CDS:polyprotein [Hep Query	1309	A Y D I I I C D E C H S T D S T T I L
	4267	CCTATGACATCATAATATGTGATGAGTGCCACTCAACTGACTCGACCACTATCCTG
Sbjct	3299	
CDS:non-structural p	500	CCTATGACATCATAATATGTGATGAGTGCCACTCAACTGACTCGACCACTATCCTG
A Y D I I I C D E C H S T D S T T I L		
CDS:polyprotein [Hep Query	1329	I G T V L D Q A E T A G A R L V V L A
	4327	TCGGCACAGTCCTGGACCAAGCGGAGACGGCTGGAGCGCGACTCGTCGTGCTCGCC
Sbjct	3359	
CDS:non-structural p	520	TCGGCACAGTCCTGGACCAAGCGGAGACGGCTGGAGCGCGACTCGTCGTGCTCGCC
I G T V L D Q A E T A G A R L V V L A		
CDS:polyprotein [Hep Query	1349	A T P P G S V T V P H P N I E E V A L
	4387	CTACGCCTCCGGGATCGGTACCCTGCCACATCCAAACATCGAGGAGGTGGCTCTG
Sbjct	3419	
CDS:non-structural p	540	CTACGCCTCCGGGATCGGTACCCTGCCACATCCAAACATCGAGGAGGTGGCTCTG
A T P P G S V T V P H P N I E E V A L		
CDS:polyprotein [Hep Query	1369	A T P P G S V T V P H P N I E E V A L
	4447	S T G E I P F Y G K A I P I E T I K G
Sbjct	3479	GCACGGAGAAATCCCCTTTATGGCAAAGCCATCCCCATCGAGACCATCAAGGGG
CDS:non-structural p	560	
S T G E I P F Y G K A I P I E T I K G		
CDS:polyprotein [Hep Query	1389	GCACGGAGAAATCCCCTTTATGGCAAAGCCATCCCCATCGAGACCATCAAGGGG
	4507	R H L I F C H S K K C D E L A A K L
Sbjct	3539	
CDS:non-structural p	580	GGCACCTCATTTCTGCCATTCCAAGAAGAAATGTGATGAGCTCGCCCGAAGCTG
R H L I F C H S K K C D E L A A K L		
CDS:polyprotein [Hep Query	1409	R H L I F C H S K K C D E L A A K L
	4567	G L G L N A V A Y Y R G L D V S V I P
Sbjct	3599	GCCTCGGACTCAATGCTGTAGCATATTACCGGGCCTTGATGTATCCGTACATACCA
CDS:non-structural p	600	
G L G L N A V A Y Y R G L D V S V I P		
CDS:polyprotein [Hep Query	1429	GCCTCGGACTCAATGCTGTAGCATATTACCGGGCCTTGATGTATCCGTACATACCA
	4627	S G D V I V V A T D A L M T G F T G D
Sbjct	3659	GCCTCGGACTCAATGCTGTAGCATATTACCGGGCCTTGATGTATCCGTACATACCA
		GCCTCGGACTCAATGCTGTAGCAACGGACGCTCTAACGGGCTTTACCGGCGAT

CDS:non-structural p	620	S G D V I V V A T D A L M T G F T G D
CDS:polyprotein [Hep Query	1449	D S V I D C N T C V T Q T V D F S L D
	4687	ACTCAGTGATCGACTGCAATACATGTGTCACCCAGACAGTCGACTTCAGCCTGGAC
Sbjct	3719	ACTCAGTGATCGACTGCAATACATGTGTCACCCAGACAGTCGACTTCAGCCTGGAC
CDS:non-structural p	640	D S V I D C N T C V T Q T V D F S L D
CDS:polyprotein [Hep Query	1469	T F T I E T T V P Q D A V S R S Q R
	4747	CCTTCACCATTGAGACGACCGTGCCACAAGACGCGGTGTCACGCTCGCAGCGG
Sbjct	3779	CCTTCACCATTGAGACGACCGTGCCACAAGACGCGGTGTCACGCTCGCAGCGG
CDS:non-structural p	660	T F T I E T T V P Q D A V S R S Q R
CDS:polyprotein [Hep Query	1489	G R T G R G R M G I Y R F V T P G E R
	4807	GCAGGACTGGTAGGGCAGGATGGGCATTTACAGGTTGTGACTCCAGGAGAACGG
Sbjct	3839	GCAGGACTGGTAGGGCAGGATGGGCATTTACAGGTTGTGACTCCAGGAGAACGG
CDS:non-structural p	680	G R T G R G R M G I Y R F V T P G E R
CDS:polyprotein [Hep Query	1509	S G M F D S S V L C E C Y D A G C A W
	4867	CGGGCATGTTCGATTCTCGGTTCTGTGCGAGTGTCTATGACGCGGGCTGTGCTTGG
Sbjct	3899	CGGGCATGTTCGATTCTCGGTTCTGTGCGAGTGTCTATGACGCGGGCTGTGCTTGG
CDS:non-structural p	700	S G M F D S S V L C E C Y D A G C A W
CDS:polyprotein [Hep Query	1529	E L T P A E T S V R L R A Y L N T P G
	4927	AGCTCACGCCGCCGAGACCTCAGTTAGGTTGCGGGCTTACCTAAACACACCAGGG
Sbjct	3959	AGCTCACGCCGCCGAGACCTCAGTTAGGTTGCGGGCTTACCTAAACACACCAGGG
CDS:non-structural p	720	E L T P A E T S V R L R A Y L N T P G
CDS:polyprotein [Hep Query	1549	P V C Q D H L E F W E S V F T G L T H
	4987	CCGTCTGCCAGGACCATCTGGAGTTCTGGGAGAGCGTCTTACAGGCCTCACCCAC
Sbjct	4019	CCGTCTGCCAGGACCATCTGGAGTTCTGGGAGAGCGTCTTACAGGCCTCACCCAC
CDS:non-structural p	740	P V C Q D H L E F W E S V F T G L T H
CDS:polyprotein [Hep Query	1569	D A H F L S Q T K Q A G D N F P Y L V
	5047	ACGCCCATTTCTGTCCCAGACTAACGAGGCAGGAGACAACCTCCCTACCTGGTA
Sbjct	4079	ACGCCCATTTCTGTCCCAGACTAACGAGGCAGGAGACAACCTCCCTACCTGGTA
CDS:non-structural p	760	D A H F L S Q T K Q A G D N F P Y L V
CDS:polyprotein [Hep Query	1589	Y Q A T V C A R A Q A P P P S W D Q M
	5107	ACCAGGCTACGGTGTGCGCCAGGGCTCAGGCTCCACCTCCATCGTGGGACCAAATG
Sbjct	4139	ACCAGGCTACGGTGTGCGCCAGGGCTCAGGCTCCACCTCCATCGTGGGACCAAATG
CDS:non-structural p	780	Y Q A T V C A R A Q A P P P S W D Q M
CDS:polyprotein [Hep Query	1609	K C L I R L K P T L H G P T P L L Y R
	5167	AGTGTCTCATACGGCTAAAGCCTACGCTGCACGGCCAACGCCCTGCTGTATAGG
Sbjct	4199	AGTGTCTCATACGGCTAAAGCCTACGCTGCACGGCCAACGCCCTGCTGTATAGG
CDS:non-structural p	800	K C L I R L K P T L H G P T P L L Y R
CDS:polyprotein [Hep Query	1629	G A V Q N E V T T T H P I T K Y I M A
	5227	GAGCCGTTCAAAACGAGGTTACTACCACACACCCATAACCAAATACATCATGGCA
Sbjct	4259	GAGCCGTTCAAAACGAGGTTACTACCACACACCCATAACCAAATACATCATGGCA

CDS:non-structural p	820	G A V Q N E V T T T H P I T K Y I M A
CDS:polyprotein [Hep Query	1649	M S A D L E V V T S T W V L V G G V L
	5287	TGTCGGCTGACCTGGAGGTCGTCACGAGCACCTGGGTGCTGGTAGGCGGAGTCCTA
Sbjct	4319	TGTCGGCTGACCTGGAGGTCGTCACGAGCACCTGGGTGCTGGTAGGCGGAGTCCTA
CDS:non-structural p	840	M S A D L E V V T S T W V L V G G V L
CDS:polyprotein [Hep Query	1669	A L A A Y C L T T G S V V I V G R I I
	5347	CTCTGGCCGCGTATTGCCTGACAACAGGCAGCGTGGTCATTGTGGGCAGGATCATC
Sbjct	4379	CTCTGGCCGCGTATTGCCTGACAACAGGCAGCGTGGTCATTGTGGGCAGGATCATC
CDS:non-structural p	860	A L A A Y C L T T G S V V I V G R I I
CDS:polyprotein [Hep Query	1689	S G K P A I I P D R E V L Y R E F D E
	5407	CCGGAAAGCCGGCCATCATTCCGACAGGAAGTCCTTACCGGGAGTCGATGAG
Sbjct	4439	CCGGAAAGCCGGCCATCATTCCGACAGGAAGTCCTTACCGGGAGTCGATGAG
CDS:non-structural p	880	S G K P A I I P D R E V L Y R E F D E
CDS:polyprotein [Hep Query	1709	E E C A S H L P Y I E Q G M Q L A E Q
	5467	AAGAGTGCCTCACACCTCCCTACATCGAACAGGAATGCAGCTGCCGAACAA
Sbjct	4499	AAGAGTGCCTCACACCTCCCTACATCGAACAGGAATGCAGCTGCCGAACAA
CDS:non-structural p	900	E E C A S H L P Y I E Q G M Q L A E Q
CDS:polyprotein [Hep Query	1729	K Q K A I G L L Q T A T K Q A E A A A
	5527	AACAGAAGGCAATCGGTTGCTGCAAACAGCCACCAAGCAAGCGGAGGCTGCTGCT
Sbjct	4559	AACAGAAGGCAATCGGTTGCTGCAAACAGCCACCAAGCAAGCGGAGGCTGCTGCT
CDS:non-structural p	920	K Q K A I G L L Q T A T K Q A E A A A
CDS:polyprotein [Hep Query	1749	V V E S K W R T L E A F W A K H M W N
	5587	TGGTGGAAATCCAAGTGGCGGACCTCGAACGCCTCTGGGCGAACATATGTGGAAAT
Sbjct	4619	TGGTGGAAATCCAAGTGGCGGACCTCGAACGCCTCTGGGCGAACATATGTGGAAAT
CDS:non-structural p	940	V V E S K W R T L E A F W A K H M W N
CDS:polyprotein [Hep Query	1769	I S G I Q Y L A G L S T L P G N P A I
	5647	TCAGCGGGATACAATATTAGCAGGCTTGTCCACTCTGCCTGGCAACCCCGCGATA
Sbjct	4679	TCAGCGGGATACAATATTAGCAGGCTTGTCCACTCTGCCTGGCAACCCCGCGATA
CDS:non-structural p	960	I S G I Q Y L A G L S T L P G N P A I
CDS:polyprotein [Hep Query	1789	S L M A F T A S I T S P L T T Q H T L
	5707	CACTGATGGCATTACAGCCTCTATCACCAAGCCGCTCACCAACACATACCCCTC
Sbjct	4739	CACTGATGGCATTACAGCCTCTATCACCAAGCCGCTCACCAACACATACCCCTC
CDS:non-structural p	980	S L M A F T A S I T S P L T T Q H T L
CDS:polyprotein [Hep Query	1809	F N I L G G W V A A Q L A P P S A A S
	5767	TTAACATCCTGGGGGATGGGTGGCCGCCAACCTGCTCCTCCCAGCGCTGCTTCT
Sbjct	4799	TTAACATCCTGGGGGATGGGTGGCCGCCAACCTGCTCCTCCCAGCGCTGCTTCT
CDS:non-structural p	1000	F N I L G G W V A A Q L A P P S A A S
CDS:polyprotein [Hep Query	1829	F V G A G I A G A A V G S I G L G K V
	5827	TCGTAGGCGCCGGCATCGCTGGAGCGGCTGTTGGCAGCATAGGCCTGGGAAGGTG
Sbjct	4859	TCGTAGGCGCCGGCATCGCTGGAGCGGCTGTTGGCAGCATAGGCCTGGGAAGGTG

CDS:non-structural p	1020	F V G A G I A G A A V G S I G L G K V
CDS:polyprotein [Hep Query	1849	V D I L A G Y G A G V A G A L V A F K
	5887	TGGATATTTGGCAGGTTATGGAGCAGGGTGGCAGGCGCCTCGTGGCCTTAAG
Sbjct	4919	TGGATATTTGGCAGGTTATGGAGCAGGGTGGCAGGCGCCTCGTGGCCTTAAG
CDS:non-structural p	1040	V D I L A G Y G A G V A G A L V A F K
CDS:polyprotein [Hep Query	1869	M S G E M P S T E D L V N L L P A I L
	5947	TGAGCGCGAGATGCCCTCCACCGAGGACCTGGTTACCTACTCCCTGCTATCCTC
Sbjct	4979	TGAGCGCGAGATGCCCTCCACCGAGGACCTGGTTACCTACTCCCTGCTATCCTC
CDS:non-structural p	1060	M S G E M P S T E D L V N L L P A I L
CDS:polyprotein [Hep Query	1889	P G A L V V G V V C A A I L R R H V G
	6007	CTGGCCCTAGTCGTGGGTCGTGCGCAGCGATACTCGTCGGCACGTGGC
Sbjct	5039	CTGGCCCTAGTCGTGGGTCGTGCGCAGCGATACTCGTCGGCACGTGGC
CDS:non-structural p	1080	P G A L V V G V V C A A I L R R H V G
CDS:polyprotein [Hep Query	1909	G E G A V Q W M N R L I A F A S R G N
	6067	GGGAGGGGCTGTGCAGTGGATGAACCGGCTGATAGCGTTCGCTCGGGGTAAC
Sbjct	5099	GGGAGGGGCTGTGCAGTGGATGAACCGGCTGATAGCGTTCGCTCGGGGTAAC
CDS:non-structural p	1100	G E G A V Q W M N R L I A F A S R G N
CDS:polyprotein [Hep Query	1929	V S P T H Y V P E S D A A A R V T Q I
	6127	TCTCCCCACGCACTATGTGCCTGAGAGCAGCTGCAGCACGTGTCAGATC
Sbjct	5159	TCTCCCCACGCACTATGTGCCTGAGAGCAGCTGCAGCACGTGTCAGATC
CDS:non-structural p	1120	V S P T H Y V P E S D A A A R V T Q I
CDS:polyprotein [Hep Query	1949	S S L T I T Q L L K R L H Q W I N E D
	6187	CTAGTCTTACCATCACTCAGCTGCTGAAGAGGCTTCACCAGTGGATCAACGAGGAC
Sbjct	5219	CTAGTCTTACCATCACTCAGCTGCTGAAGAGGCTTCACCAGTGGATCAACGAGGAC
CDS:non-structural p	1140	S S L T I T Q L L K R L H Q W I N E D
CDS:polyprotein [Hep Query	1969	S T P C S G S W L R D V W D W I C T V
	6247	CCACGCCATGCTCCGGCTCGTGGCTAACAGAGATGTTGGATTGGATATGCACGGTG
Sbjct	5279	CCACGCCATGCTCCGGCTCGTGGCTAACAGAGATGTTGGATTGGATATGCACGGTG
CDS:non-structural p	1160	S T P C S G S W L R D V W D W I C T V
CDS:polyprotein [Hep Query	1989	T D F K T W L Q S K L L P R L P G V P
	6307	CTGATTCAAGACCTGGCTCCAGTCCAAGCTCCTGCCGCATTGCCGGAGTCCCC
Sbjct	5339	CTGATTCAAGACCTGGCTCCAGTCCAAGCTCCTGCCGCATTGCCGGAGTCCCC
CDS:non-structural p	1180	T D F K T W L Q S K L L P R L P G V P
CDS:polyprotein [Hep Query	2009	F S C Q R G Y K G V W R G D G I M Q T
	6367	TCTCATGTCAACGTGGTACAAGGGAGTCTGGCGGGCGACGGCATCATGCAAACC
Sbjct	5399	TCTCATGTCAACGTGGTACAAGGGAGTCTGGCGGGCGACGGCATCATGCAAACC
CDS:non-structural p	1200	F S C Q R G Y K G V W R G D G I M Q T
CDS:polyprotein [Hep Query	2029	C P C G A Q I T G H V K N G S M R I V
	6427	GCCCCATGTGGAGCACAGATCACCGGACATGTGAAAAACGGTTCCATGAGGATCGTG
Sbjct	5459	GCCCCATGTGGAGCACAGATCACCGGACATGTGAAAAACGGTTCCATGAGGATCGTG

CDS:non-structural p	1220	C P C G A Q I T G H V K N G S M R I V
CDS:polyprotein [Hep Query	2049	P R T C S N T W H G T F P I N A Y T T
	6487	CTAGGACCTGTAGTAACACGTGGCATGGAACATTCCCCATTAAACGCGTACACCACG
Sbjct	5519	CTAGGACCTGTAGTAACACGTGGCATGGAACATTCCCCATTAAACGCGTACACCACG
CDS:non-structural p	1240	P R T C S N T W H G T F P I N A Y T T
CDS:polyprotein [Hep Query	2069	P C T P S P A P N Y S R A L W R V A A
	6547	CCTGCACGCCCTCCCCGGCGCCAAATTATTCTAGGGCGCTGTGGCGGGTGGCTGCT
Sbjct	5579	CCTGCACGCCCTCCCCGGCGCCAAATTATTCTAGGGCGCTGTGGCGGGTGGCTGCT
CDS:non-structural p	1260	P C T P S P A P N Y S R A L W R V A A
CDS:polyprotein [Hep Query	2089	E Y V E V T R V G D F H Y V T G M T T
	6607	AGTACGTGGAGGTTACGCGGGTGGGGATTCCACTACGTGACGGGCATGACCACT
Sbjct	5639	AGTACGTGGAGGTTACGCGGGTGGGGATTCCACTACGTGACGGGCATGACCACT
CDS:non-structural p	1280	E Y V E V T R V G D F H Y V T G M T T
CDS:polyprotein [Hep Query	2109	N V K C P C Q V P A P E F F T E V D G
	6667	ACGTAAAGTGCCGTGTCAGGTTCCGGCCCCGAATTCTCACAGAAGTGGATGGG
Sbjct	5699	ACGTAAAGTGCCGTGTCAGGTTCCGGCCCCGAATTCTCACAGAAGTGGATGGG
CDS:non-structural p	1300	N V K C P C Q V P A P E F F T E V D G
CDS:polyprotein [Hep Query	2129	R L H R Y A P A C K P L L R E E V T F
	6727	GGTTGCACAGGTACGCTCCAGCGTGCAAACCCCTCCTACGGGAGGAGGTACATTC
Sbjct	5759	GGTTGCACAGGTACGCTCCAGCGTGCAAACCCCTCCTACGGGAGGAGGTACATTC
CDS:non-structural p	1320	R L H R Y A P A C K P L L R E E V T F
CDS:polyprotein [Hep Query	2149	V G L N Q Y L V G S Q L P C E P E P D
	6787	TCGGGCTCAATCAATACTGGTTGGGTACAGCTCCCATGCGAGCCCGAACCGGAC
Sbjct	5819	TCGGGCTCAATCAATACTGGTTGGGTACAGCTCCCATGCGAGCCCGAACCGGAC
CDS:non-structural p	1340	V G L N Q Y L V G S Q L P C E P E P D
CDS:polyprotein [Hep Query	2169	A V L T S M L T D P S H I T A E T A K
	6847	CAGTGCTCACTCCATGCTACCGACCCCTCCACATTACGGCGGAGACGGCTAAG
Sbjct	5879	CAGTGCTCACTCCATGCTACCGACCCCTCCACATTACGGCGGAGACGGCTAAG
CDS:non-structural p	1360	A V L T S M L T D P S H I T A E T A K
CDS:polyprotein [Hep Query	2189	R L A R G S P P S L A S S S A S Q L S
	6907	GGCTGCCAGGGATCTCCCCCTCCTGGCCAGCTCATCAGCTAGCCAGCTGTCT
Sbjct	5939	GGCTGCCAGGGATCTCCCCCTCCTGGCCAGCTCATCAGCTAGCCAGCTGTCT
CDS:non-structural p	1380	R L A R G S P P S L A S S S A S Q L S
CDS:polyprotein [Hep Query	2209	P S L K A T C T T R H D S P D A D L I
	6967	CTTCCTTGAAGGCAACATGCACTACCGTCATGACTCCCCGGACGCTGACCTCATC
Sbjct	5999	CTTCCTTGAAGGCAACATGCACTACCGTCATGACTCCCCGGACGCTGACCTCATC
CDS:non-structural p	1400	P S L K A T C T T R H D S P D A D L I
CDS:polyprotein [Hep Query	2229	A N L L W R Q E M G G N I T R V E S E
	7027	CCAACCTCCTGTGGCGCAGGAGATGGCGGGACATCACCCGCGTGGAGTCAGAA
Sbjct	6059	CCAACCTCCTGTGGCGCAGGAGATGGCGGGACATCACCCGCGTGGAGTCAGAA

CDS:non-structural p	1420	A N L L W R Q E M G G N I T R V E S E
CDS:polyprotein [Hep Query	2249	K V V I L D S F E P L Q A E E D E R E
	7087	AGGTAGTAATTTGGACTCTTCGAGCCGCTCCAAGCGGAGGAGGATGAGAGGGAA
Sbjct	6119	AGGTAGTAATTTGGACTCTTCGAGCCGCTCCAAGCGGAGGAGGATGAGAGGGAA
CDS:non-structural p	1440	K V V I L D S F E P L Q A E E D E R E
CDS:polyprotein [Hep Query	2269	S V P A E I L R R S R K F P R A M P I
	7147	CCGTTCCGGCGGAGATCCTCGGGAGGTCCAGGAAATTCCCTCGAGCGATGCCATA
Sbjct	6179	CCGTTCCGGCGGAGATCCTCGGGAGGTCCAGGAAATTCCCTCGAGCGATGCCATA
CDS:non-structural p	1460	S V P A E I L R R S R K F P R A M P I
CDS:polyprotein [Hep Query	2289	A R P D Y N P P L L E S W K D P D Y V
	7207	CACGCCCGGATTACAACCCCTCCACTGTTAGAGTCCTGGAAGGACCCGACTACGTC
Sbjct	6239	CACGCCCGGATTACAACCCCTCCACTGTTAGAGTCCTGGAAGGACCCGACTACGTC
CDS:non-structural p	1480	A R P D Y N P P L L E S W K D P D Y V
CDS:polyprotein [Hep Query	2309	P V V H G C P L P P A K A P P I P P P
	7267	CAGTGGTACACGGGTGTCCATTGCCGCCTGCCAAGGCCCTCCGATACCACCTCCA
Sbjct	6299	CAGTGGTACACGGGTGTCCATTGCCGCCTGCCAAGGCCCTCCGATACCACCTCCA
CDS:non-structural p	1500	P V V H G C P L P P A K A P P I P P P
CDS:polyprotein [Hep Query	2329	R K R T V V L S E S T V S S A L A E L
	7327	GGAAGAGGACGGTTGTCTGTCAAATCTACCGTGTCTTCTGCCCTGGCGGAGCTC
Sbjct	6359	GGAAGAGGACGGTTGTCTGTCAAATCTACCGTGTCTTCTGCCCTGGCGGAGCTC
CDS:non-structural p	1520	R K R T V V L S E S T V S S A L A E L
CDS:polyprotein [Hep Query	2349	T K T F G S S E S S A V D S G T A T A
	7387	CAAAGACCTCGGCAGCTCCGAATCGTCGGCGTCGACAGCGGCACGGCAACGGCC
Sbjct	6419	CAAAGACCTCGGCAGCTCCGAATCGTCGGCGTCGACAGCGGCACGGCAACGGCC
CDS:non-structural p	1540	T K T F G S S E S S A V D S G T A T A
CDS:polyprotein [Hep Query	2369	P D Q P S D D G D A G S D V E S Y S S
	7447	CTGACCAGCCCTCCGACGACGGCGACGGGATCCGACGTTGAGTCGTACTCCTCC
Sbjct	6479	CTGACCAGCCCTCCGACGACGGCGACGGGATCCGACGTTGAGTCGTACTCCTCC
CDS:non-structural p	1560	P D Q P S D D G D A G S D V E S Y S S
CDS:polyprotein [Hep Query	2389	P P L E G E P G D P D L S D G S W S T
	7507	CCCCCTTGAGGGGGAGCCGGGGATCCGATCTCAGCGACGGGTCTGGTCTACC
Sbjct	6539	CCCCCTTGAGGGGGAGCCGGGGATCCGATCTCAGCGACGGGTCTGGTCTACC
CDS:non-structural p	1580	P P L E G E P G D P D L S D G S W S T
CDS:polyprotein [Hep Query	2409	S E E A S E D V V C C S M S Y T W T G
	7567	GCGAGGAGGCTAGTGAGGACGTCGTCTGCTCGATGTCCACACATGGACAGGC
Sbjct	6599	GCGAGGAGGCTAGTGAGGACGTCGTCTGCTCGATGTCCACACATGGACAGGC
CDS:non-structural p	1600	S E E A S E D V V C C S M S Y T W T G
CDS:polyprotein [Hep Query	2429	L I T P C A A E E T K L P I N A L S N
	7627	TGATCACGCCATGCGCTGCGGAGGAAACCAAGCTGCCATCAATGCACTGAGCAAC
Sbjct	6659	TGATCACGCCATGCGCTGCGGAGGAAACCAAGCTGCCATCAATGCACTGAGCAAC

CDS:non-structural p	1620	L I T P C A A E E T K L P I N A L S N
CDS:polyprotein [Hep Query	2449	L L R H H N L V Y A T T S R S A S L R
	7687	TGCTCCGTCACCACAACCTGGTCTATGCTACAACATCTCGCAGCGCAAGCCTGCGG
Sbjct	6719	TGCTCCGTCACCACAACCTGGTCTATGCTACAACATCTCGCAGCGCAAGCCTGCGG
CDS:non-structural p	1640	L L R H H N L V Y A T T S R S A S L R
CDS:polyprotein [Hep Query	2469	K K V T F D R L Q V L D D H Y R D V L
	7747	AGAAGGTCACCTTGACAGACTGCAGGTCTGGACGACCACTACCGGGACGTGCTC
Sbjct	6779	AGAAGGTCACCTTGACAGACTGCAGGTCTGGACGACCACTACCGGGACGTGCTC
CDS:non-structural p	1660	K K V T F D R L Q V L D D H Y R D V L
CDS:polyprotein [Hep Query	2489	E M K A K A S T V K A K L L S V E E A
	7807	AGATGAAGGCGAAGGCGTCCACAGTTAAGGCTAAACTCTATCCGTGGAGGAAGCC
Sbjct	6839	AGATGAAGGCGAAGGCGTCCACAGTTAAGGCTAAACTCTATCCGTGGAGGAAGCC
CDS:non-structural p	1680	E M K A K A S T V K A K L L S V E E A
CDS:polyprotein [Hep Query	2509	K L T P P H S A R S K F G Y G A K D V
	7867	AGCTGACGCCCAACATTGGCCAGATCTAAATTGGCTATGGGGCAAAGGACGTC
Sbjct	6899	AGCTGACGCCCAACATTGGCCAGATCTAAATTGGCTATGGGGCAAAGGACGTC
CDS:non-structural p	1700	K L T P P H S A R S K F G Y G A K D V
CDS:polyprotein [Hep Query	2529	N L S S K A V N H I R S V W K D L L E
	7927	ACCTATCCAGCAAGGCCGTTAACCATCCGCTCCGTGTGGAAAGGACTTGCTGGAA
Sbjct	6959	ACCTATCCAGCAAGGCCGTTAACCATCCGCTCCGTGTGGAAAGGACTTGCTGGAA
CDS:non-structural p	1720	N L S S K A V N H I R S V W K D L L E
CDS:polyprotein [Hep Query	2549	T E T P I D T T I M A K N E V F C V Q
	7987	CTGAGACACCAATTGACACCACCATGGCAAAAAATGAGGTTCTGCGTCCAA
Sbjct	7019	CTGAGACACCAATTGACACCACCATGGCAAAAAATGAGGTTCTGCGTCCAA
CDS:non-structural p	1740	T E T P I D T T I M A K N E V F C V Q
CDS:polyprotein [Hep Query	2569	E K G G R K P A R L I V F P D L G V R
	8047	AGAAGGGGGCCGCAAGCCAGCTGCCATTACGTATTCCCAGATTGGGGTTCGT
Sbjct	7079	AGAAGGGGGCCGCAAGCCAGCTGCCATTACGTATTCCCAGATTGGGGTTCGT
CDS:non-structural p	1760	E K G G R K P A R L I V F P D L G V R
CDS:polyprotein [Hep Query	2589	C E K M A L Y D V V S T L P Q A V M G
	8107	GCGAGAAAATGGCCCTTACGATGTGGCTCCACCCCTCCCTCAGGCCGTATGGG
Sbjct	7139	GCGAGAAAATGGCCCTTACGATGTGGCTCCACCCCTCCCTCAGGCCGTATGGG
CDS:non-structural p	1780	C E K M A L Y D V V S T L P Q A V M G
CDS:polyprotein [Hep Query	2609	S Y G F Q Y S P G Q R V E F L V N A W
	8167	CATACGGATTCCAATACTCTCCTGGACAGCGGGTCGAGTTCTGGTGAATGCCTGG
Sbjct	7199	CATACGGATTCCAATACTCTCCTGGACAGCGGGTCGAGTTCTGGTGAATGCCTGG
CDS:non-structural p	1800	S Y G F Q Y S P G Q R V E F L V N A W
CDS:polyprotein [Hep Query	2629	A K K C P M G F A Y D T R C F D S T V
	8227	CGAAGAAAATGCCCTATGGGCTTCGCATATGACACCCGCTGTTGACTCAACGGTC
Sbjct	7259	CGAAGAAAATGCCCTATGGGCTTCGCATATGACACCCGCTGTTGACTCAACGGTC

CDS:non-structural p	1820	A K K C P M G F A Y D T R C F D S T V
CDS:polyprotein [Hep Query	2649 8287	E N D I R V E E S I Y Q C C C D L A P E AGAATGACATCCGTGTTGAGGAGTCATCTACCAATGTTGTGACTTGGCCCCGAA
Sbjct	7319	AGAATGACATCCGTGTTGAGGAGTCATCTACCAATGTTGTGACTTGGCCCCGAA
CDS:non-structural p	1840	E N D I R V E E S I Y Q C C C D L A P E
CDS:polyprotein [Hep Query	2669 8347	R Q A I R S L T E R L Y I G G P L T N GACAGGCCATAAGGTCGCTCACAGAGCGGCTTACATCGGGGGCCCCCTGACTAAT
Sbjct	7379	GACAGGCCATAAGGTCGCTCACAGAGCGGCTTACATCGGGGGCCCCCTGACTAAT
CDS:non-structural p	1860	R Q A I R S L T E R L Y I G G P L T N
CDS:polyprotein [Hep Query	2689 8407	K G Q N C G Y R R C R A S G V L T T S AAGGGCAGAACTGCGGCTATGCCGGTGCCGCGAGCGGTGACTGACGACCAGC
Sbjct	7439	AAGGGCAGAACTGCGGCTATGCCGGTGCCGCGAGCGGTGACTGACGACCAGC
CDS:non-structural p	1880	K G Q N C G Y R R C R A S G V L T T S
CDS:polyprotein [Hep Query	2709 8467	G N T L T C Y L K A A A A C R A A K L GTAATACCCCTCACATGTTACTTGAAGGCCGCTGCCGCTGTCGAGCTGCGAAGCTC
Sbjct	7499	GTAATACCCCTCACATGTTACTTGAAGGCCGCTGCCGCTGTCGAGCTGCGAAGCTC
CDS:non-structural p	1900	G N T L T C Y L K A A A A C R A A K L
CDS:polyprotein [Hep Query	2729 8527	D C T M L V C G D D L V V I C E S A G ACTGCACGATGCTCGTATGCCGGAGACGACCTTGTGTTATCTGTGAAAGCGCGGGG
Sbjct	7559	ACTGCACGATGCTCGTATGCCGGAGACGACCTTGTGTTATCTGTGAAAGCGCGGGG
CDS:non-structural p	1920	D C T M L V C G D D L V V I C E S A G
CDS:polyprotein [Hep Query	2749 8587	Q E D E A S L R A F T E A M T R Y S A AAGAGGACGAGGGAGCCTACGGGCTCACGGAGGCTATGACTAGATACTCTGCC
Sbjct	7619	AAGAGGACGAGGGAGCCTACGGGCTCACGGAGGCTATGACTAGATACTCTGCC
CDS:non-structural p	1940	Q E D E A S L R A F T E A M T R Y S A
CDS:polyprotein [Hep Query	2769 8647	P G D P P K P E Y D L E L I T S C S S CTGGGGACCCGCCAAACCAAGAATACGACTTGGAGTTGATAACATCATGCTCCTCC
Sbjct	7679	CTGGGGACCCGCCAAACCAAGAATACGACTTGGAGTTGATAACATCATGCTCCTCC
CDS:non-structural p	1960	P G D P P K P E Y D L E L I T S C S S
CDS:polyprotein [Hep Query	2789 8707	V S V A H D A S G K R V Y Y L T R D P TGTCAGTCGCGCACGATGCATCTGGAAAAGGGTGTACTATCTCACCGTGACCCC
Sbjct	7739	TGTCAGTCGCGCACGATGCATCTGGAAAAGGGTGTACTATCTCACCGTGACCCC
CDS:non-structural p	1980	V S V A H D A S G K R V Y Y L T R D P
CDS:polyprotein [Hep Query	2809 8767	T P L A R A A W E T A R H T P V N S W CCCCCCTTGCAGCGGGCTGCGTGGAGACAGCTAGACACACTCCAGTCAATTCTGG
Sbjct	7799	CCCCCCTTGCAGCGGGCTGCGTGGAGACAGCTAGACACACTCCAGTCAATTCTGG
CDS:non-structural p	2000	T P L A R A A W E T A R H T P V N S W
CDS:polyprotein [Hep Query	2829 8827	G N I I M Y A P T L W A R M I L M T H GCAACATCATCATGTATGCAGCCACCTTGTGGCAAGGATGATCCTGATGACTCAT
Sbjct	7859	GCAACATCATCATGTATGCAGCCACCTTGTGGCAAGGATGATCCTGATGACTCAT

CDS:non-structural p	2020	G N I I M Y A P T L W A R M I L M T H
CDS:polyprotein [Hep Query	2849	F S I L L A Q E Q L E K A L D C Q I Y
	8887	TCTCCATCCTCTAGCTCAGGAACAACTTGAAAAAGCCCTAGATTGTCAGATCTAC
Sbjct	7919	TCTCCATCCTCTAGCTCAGGAACAACTTGAAAAAGCCCTAGATTGTCAGATCTAC
CDS:non-structural p	2040	F S I L L A Q E Q L E K A L D C Q I Y
CDS:polyprotein [Hep Query	2869	A C Y S I E P L D L P Q I I Q R L H G
	8947	CCTGTTACTCCATTGAGCCACTTGACCTACCTCAGATCATTCAACGACTCCATGGC
Sbjct	7979	CCTGTTACTCCATTGAGCCACTTGACCTACCTCAGATCATTCAACGACTCCATGGC
CDS:non-structural p	2060	A C Y S I E P L D L P Q I I Q R L H G
CDS:polyprotein [Hep Query	2889	S A F S L H S Y S P G E I N R V A S C
	9007	GCGCATTTCACTCCATAGTTACTCTCAGGTGAGATCAATAGGGTGGCTTCATGC
Sbjct	8039	GCGCATTTCACTCCATAGTTACTCTCAGGTGAGATCAATAGGGTGGCTTCATGC
CDS:non-structural p	2080	S A F S L H S Y S P G E I N R V A S C
CDS:polyprotein [Hep Query	2909	R K L G V P P L R V W R H R A R S V R
	9067	GGAAACTTGGGGTACCGCCCTTGCAGTGAGACATCGGGCAGAAGTGTCCGC
Sbjct	8099	GGAAACTTGGGGTACCGCCCTTGCAGTGAGACATCGGGCAGAAGTGTCCGC
CDS:non-structural p	2100	R K L G V P P L R V W R H R A R S V R
CDS:polyprotein [Hep Query	2929	R L L S Q G G R A A T C G K Y L F N W
	9127	GGCTACTGTCCCAGGGGGAGGGCTGCCACTTGTGGCAAGTACCTCTCACTGG
Sbjct	8159	GGCTACTGTCCCAGGGGGAGGGCTGCCACTTGTGGCAAGTACCTCTCACTGG
CDS:non-structural p	2120	R L L S Q G G R A A T C G K Y L F N W
CDS:polyprotein [Hep Query	2949	V R T K L K L T P I P A A S Q L D L S
	9187	TAAGGACCAAGCTCAAACACTCCAATCCGGTGCCTCCAGTTGGATTATCC
Sbjct	8219	TAAGGACCAAGCTCAAACACTCCAATCCGGTGCCTCCAGTTGGATTATCC
CDS:non-structural p	2140	V R T K L K L T P I P A A S Q L D L S
CDS:polyprotein [Hep Query	2969	W F V A G Y S G G D I Y H S L S R A R
	9247	GGTCGTTGCTGGTTACAGCGGGGAGACATATATCACAGCCTGTCTCGTCCCCGA
Sbjct	8279	GGTCGTTGCTGGTTACAGCGGGGAGACATATATCACAGCCTGTCTCGTCCCCGA
CDS:non-structural p	2160	W F V A G Y S G G D I Y H S L S R A R
CDS:polyprotein [Hep Query	2989	R W F M W C L L L S V G V G I Y L L
	9307	GCTGGTTCATGTGGTGCCTACTCCTACTTCTGTAGGGTAGGCATCTATCTACTC
Sbjct	8339	GCTGGTTCATGTGGTGCCTACTCCTACTTCTGTAGGGTAGGCATCTATCTACTC
CDS:non-structural p	2180	R W F M W C L L L S V G V G I Y L L
CDS:polyprotein [Hep Query	3009	N R
	9367	ACCGATGAACGGGGAGCTAACACTCCAGGCCAATAGGCCATCCTG 9412
Sbjct	8399	ACCGATGAACGGGGAGCTAACACTCCAGGCCAATAGGCCATCCTG 8444
CDS:non-structural p	2200	N R

Score = 696 bits (362), Expect = 0.0
 Identities = 376/376 (100%), Gaps = 0/376 (0%)
 Strand=Plus/Plus

Query	2	CCAGCCCCGATTGGGGCGACACTCCACCATAGATCACTCCCTGTGAGGAAC	TAC
Sbjct	2	CCAGCCCCGATTGGGGCGACACTCCACCATAGATCACTCCCTGTGAGGAAC	TAC
Query	62	CTTCACGCAGAAAGCGTCTAGCCATGGCGTTAGTATGAGTGTGTCAGCCTC	AGG
Sbjct	62	CTTCACGCAGAAAGCGTCTAGCCATGGCGTTAGTATGAGTGTGTCAGCCTC	AGG
Query	122	CCCCCTCCCGGGAGAGCCATAGTGGTCTGCGAACCGGTGAGTACACCGGA	ATTGCC
Sbjct	122	CCCCCTCCCGGGAGAGCCATAGTGGTCTGCGAACCGGTGAGTACACCGGA	ATTGCC
Query	182	ACGACCGGGTCCTTCTTGGATCAACCCGCTCAATGCCTGGAGATTGGCGT	GCCCC
Sbjct	182	ACGACCGGGTCCTTCTTGGATCAACCCGCTCAATGCCTGGAGATTGGCGT	GCCCC
Query	242	CGAGACTGCTAGCCGAGTAGTGGTGGTGGCGAACAGCCTGGTACTGCCTG	AATA
Sbjct	242	CGAGACTGCTAGCCGAGTAGTGGTGGTGGCGAACAGCCTGGTACTGCCTG	AATA
CDS:polyprotein [Hep	1		M S T N P K
Query	302	TGCTTGCAGTGCCCCGGGAGGTCTCGTAGACCGTGCACCATGAGCACGA	ATTCTAA
Sbjct	302	TGCTTGCAGTGCCCCGGGAGGTCTCGTAGACCGTGCACCATGAGCACGA	ATTCTAA
CDS:core-neo fusion	1		M S T N P K
CDS:polyprotein [Hep	8	Q R K T K	
Query	362	TCAAAGAAAAACCAA	377
Sbjct	362	TCAAAGAAAAACCAA	377
CDS:core-neo fusion	8	Q R K T K	

Score = 189 bits (98), Expect = 2e-43
 Identities = 98/98 (100%), Gaps = 0/98 (0%)
 Strand=Plus/Plus

Query	9508	GGTGGCTCCATCTAGCCCTAGTCACGGCTAGCTGTGAAAGGTCCGTGAGCCGCTTGACT	9567
Sbjct	8540	GGTGGCTCCATCTAGCCCTAGTCACGGCTAGCTGTGAAAGGTCCGTGAGCCGCTTGACT	8599
Query	9568	GCAGAGAGTGCTGATACTGGCCTCTCTGCAGATCAAGT	9605
Sbjct	8600	GCAGAGAGTGCTGATACTGGCCTCTCTGCAGATCAAGT	8637

CPU time: 0.15 user secs. 0.04 sys. secs 0.19 total secs.

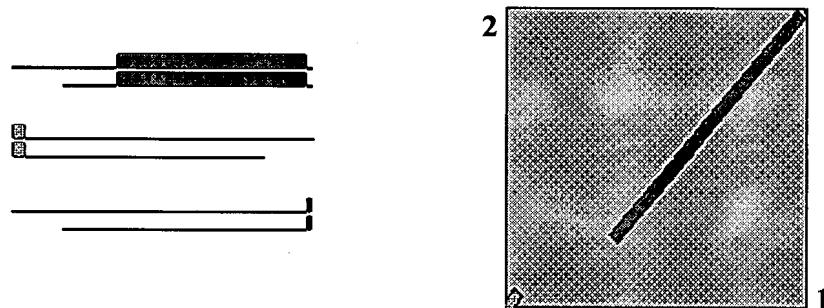
BLAST 2 SEQUENCES RESULTS VERSION BLASTN 2.2.17 [Aug-26-2007]

Match: 1 Mismatch: -2 gap open: 5 gap extension: 2

x_dropoff: 0 expect: 10.0000 wordsize: 11 Filter View option StandardMasking character option X for protein, n for nucleotide Masking color option Black Show CDS translation Align

Sequence 1: gi|5420376|Hepatitis C virus type 1b complete genome, isolate Con1
 Length = 9604 (1 .. 9605)

Sequence 2: gi|5441840|Hepatitis C virus replicon I389/NS3-3'UTR
 Length = 8000 (1 .. 8001)



NOTE: Bitscore and expect value are calculated based on the size of the nr database.

NOTE: If protein translation is reversed, please repeat the search with reverse strand of the query sequence.



Score = 1.142e+04 bits (5937), Expect = 0.0
 Identities = 5993/5993 (100%), Gaps = 0/5993 (0%)
 Strand=Plus/Plus

CDS:polyprotein [Hep	1027	A P I T A Y S Q Q T R G L L G C I I T
Query	3420	GCGCCTATTACGGCCTACTCCAACAGACGCGAGGCCTACTTGGCTGCATCATCAC
Sbjct	1816	GCGCCTATTACGGCCTACTCCAACAGACGCGAGGCCTACTTGGCTGCATCATCAC
CDS:non-structural p	2	A P I T A Y S Q Q T R G L L G C I I T
CDS:polyprotein [Hep	1047	L T G R D R N Q V E G E V Q V V S T A
Query	3480	CTCACAGGCCGGGACAGGAACCAGGTCGAGGGGGAGGTCCAAGTGGTCTCCACCGC
Sbjct	1876	CTCACAGGCCGGGACAGGAACCAGGTCGAGGGGGAGGTCCAAGTGGTCTCCACCGC

CDS:non-structural p	22	L T G R D R N Q V E G E V Q V V S T A
CDS:polyprotein [Hep Query	1067	Q S F L A T C V N G V C W T V Y H G A
	3540	CAATCTTCCTGGCGACCTCGCTCAATGGCGTGTGTTGACTGTCTATCATGGTGC
Sbjct	1936	CAATCTTCCTGGCGACCTCGCTCAATGGCGTGTGTTGACTGTCTATCATGGTGC
CDS:non-structural p	42	Q S F L A T C V N G V C W T V Y H G A
CDS:polyprotein [Hep Query	1087	S K T L A G P K G P I T Q M Y T N V D
	3600	TCAAAGACCCCTTGCCTGGCGCCAAAGGGCCAAATCACCCAAATGTACACCAATGTGGA
Sbjct	1996	TCAAAGACCCCTTGCCTGGCGCCAAAGGGCCAAATCACCCAAATGTACACCAATGTGGA
CDS:non-structural p	62	S K T L A G P K G P I T Q M Y T N V D
CDS:polyprotein [Hep Query	1107	D L V G W Q A P P G A R S L T P C T C
	3660	GACCTCGTCGGCTGGCAAGCGCCCCCCCAGGGCGCGTCCCTGACACCATGCACCTG
Sbjct	2056	GACCTCGTCGGCTGGCAAGCGCCCCCCCAGGGCGCGTCCCTGACACCATGCACCTG
CDS:non-structural p	82	D L V G W Q A P P G A R S L T P C T C
CDS:polyprotein [Hep Query	1127	S S D L Y L V T R H A D V I P V R R R
	3720	AGCTCGGACCTTACTGGTCACGAGGCATGCCATGTCAATTCCGGTGCGCCGGCG
Sbjct	2116	AGCTCGGACCTTACTGGTCACGAGGCATGCCATGTCAATTCCGGTGCGCCGGCG
CDS:non-structural p	102	S S D L Y L V T R H A D V I P V R R R
CDS:polyprotein [Hep Query	1147	D S R G S L L S P R P V S Y L K G S S
	3780	GACAGCAGGGGGAGCCTACTCTCCCCCAGGCCGTCTCCTACTTGAAGGGCTCTCG
Sbjct	2176	GACAGCAGGGGGAGCCTACTCTCCCCCAGGCCGTCTCCTACTTGAAGGGCTCTCG
CDS:non-structural p	122	D S R G S L L S P R P V S Y L K G S S
CDS:polyprotein [Hep Query	1167	G P L L C P S G H A V G I F R A A V C
	3840	GGTCCACTGCTCTGCCCTCGGGCACGCTGTGGGCATCTTCGGGCTGCCGTGTG
Sbjct	2236	GGTCCACTGCTCTGCCCTCGGGCACGCTGTGGGCATCTTCGGGCTGCCGTGTG
CDS:non-structural p	142	G P L L C P S G H A V G I F R A A V C
CDS:polyprotein [Hep Query	1187	R G V A K A V D F V P V E S M E T T M
	3900	CGAGGGGTTGCGAAGGCAGGTGGACTTGTACCCGTCGAGTCTATGGAAACCACTAT
Sbjct	2296	CGAGGGGTTGCGAAGGCAGGTGGACTTGTACCCGTCGAGTCTATGGAAACCACTAT
CDS:non-structural p	162	R G V A K A V D F V P V E S M E T T M
CDS:polyprotein [Hep Query	1207	S P V F T D N S S P P A V P Q T F Q V
	3960	TCCCCGGTCTTCACGGACAACCTCGTCCCCCTCCGGCGTACCGCAGACATTCCAGGT
Sbjct	2356	TCCCCGGTCTTCACGGACAACCTCGTCCCCCTCCGGCGTACCGCAGACATTCCAGGT
CDS:non-structural p	182	S P V F T D N S S P P A V P Q T F Q V
CDS:polyprotein [Hep Query	1227	H L H A P T G S G K S T K V P A A Y A
	4020	CATCTACACGCCCTACTGGTAGCGGCAAGAGCACTAAGGTGCCGGCTCGTATGC
Sbjct	2416	CATCTACACGCCCTACTGGTAGCGGCAAGAGCACTAAGGTGCCGGCTCGTATGC
CDS:non-structural p	202	H L H A P T G S G K S T K V P A A Y A
CDS:polyprotein [Hep Query	1247	Q G Y K V L V L N P S V A A T L G F G
	4080	CAAGGGTATAAGGTGCTTGTCCCTGAACCGTCCGTGCCGCCACCCCTAGGTTCGG
Sbjct	2476	CAAGGGTATAAGGTGCTTGTCCCTGAACCGTCCGTGCCGCCACCCCTAGGTTCGG

CDS:non-structural p	222	Q G Y K V L V L N P S V A A T L G F G
CDS:polyprotein [Hep Query	1267 4140	Y M S K A H G I D P N I R T G V R T I TATATGTCTAAGGCACATGGTATCGACCCTAACATCAGAACCGGGGTAAGGACCAT
Sbjct	2536	TATATGTCTAAGGCACATGGTATCGACCCTAACATCAGAACCGGGGTAAGGACCAT
CDS:non-structural p	242	Y M S K A H G I D P N I R T G V R T I
CDS:polyprotein [Hep Query	1287 4200	T G A P I T Y S T Y G K F L A D G G C ACGGGTGCCCTCATCACGTACTCCACCTATGGCAAGTTCTTGCCGACGGTGGTTG
Sbjct	2596	ACGGGTGCCCTCATCACGTACTCCACCTATGGCAAGTTCTTGCCGACGGTGGTTG
CDS:non-structural p	262	T G A P I T Y S T Y G K F L A D G G C
CDS:polyprotein [Hep Query	1307 4260	G G A Y D I I I C D E C H S T D S T T GGGGCGCCTATGACATCATAATATGTGATGAGTGCCACTCAACTGACTCGACCAC
Sbjct	2656	GGGGCGCCTATGACATCATAATATGTGATGAGTGCCACTCAACTGACTCGACCAC
CDS:non-structural p	282	G G A Y D I I I C D E C H S T D S T T
CDS:polyprotein [Hep Query	1327 4320	L G I G T V L D Q A E T A G A R L V V CTGGGCATCGGCACAGTCTGGACCAAGCGGAGACGGCTGGAGCGCGACTCGTCGT
Sbjct	2716	CTGGGCATCGGCACAGTCTGGACCAAGCGGAGACGGCTGGAGCGCGACTCGTCGT
CDS:non-structural p	302	L G I G T V L D Q A E T A G A R L V V
CDS:polyprotein [Hep Query	1347 4380	A T A T P P G S V T V P H P N I E E V GCCACCGCTACGCCTCCGGATCGTCACCGTGCCACATCCAAACATCGAGGAGGT
Sbjct	2776	GCCACCGCTACGCCTCCGGATCGTCACCGTGCCACATCCAAACATCGAGGAGGT
CDS:non-structural p	322	A T A T P P G S V T V P H P N I E E V
CDS:polyprotein [Hep Query	1367 4440	L S S T G E I P F Y G K A I P I E T I CTGTCCAGCACTGGAGAAATCCCCTTTATGGCAAAGCCATCCCCATCGAGACCACAT
Sbjct	2836	CTGTCCAGCACTGGAGAAATCCCCTTTATGGCAAAGCCATCCCCATCGAGACCACAT
CDS:non-structural p	342	L S S T G E I P F Y G K A I P I E T I
CDS:polyprotein [Hep Query	1387 4500	G G R H L I F C H S K K K C D E L A A GGGGGGAGGCACCTCATTTCTGCCATTCCAAGAAGAAATGTGATGAGCTCGCCGC
Sbjct	2896	GGGGGGAGGCACCTCATTTCTGCCATTCCAAGAAGAAATGTGATGAGCTCGCCGC
CDS:non-structural p	362	G G R H L I F C H S K K K C D E L A A
CDS:polyprotein [Hep Query	1407 4560	L S G L G L N A V A Y Y R G L D V S V CTGTCCGGCCTCGGACTCAATGCTGTAGCATATTACCGGGCCTTGATGTATCCGT
Sbjct	2956	CTGTCCGGCCTCGGACTCAATGCTGTAGCATATTACCGGGCCTTGATGTATCCGT
CDS:non-structural p	382	L S G L G L N A V A Y Y R G L D V S V
CDS:polyprotein [Hep Query	1427 4620	P T S G D V I V V A T D A L M T G F T CCAACTAGCGGAGACGTATTGTCGTAGCAACGGACGCTCTAACATGACGGCTTTAC
Sbjct	3016	CCAACTAGCGGAGACGTATTGTCGTAGCAACGGACGCTCTAACATGACGGCTTTAC
CDS:non-structural p	402	P T S G D V I V V A T D A L M T G F T
CDS:polyprotein [Hep Query	1447 4680	D F D S V I D C N T C V T Q T V D F S GATTCGACTCAGTGTGACTGCAATACATGTGTACCCAGACAGTCGACTTCAG
Sbjct	3076	GATTCGACTCAGTGTGACTGCAATACATGTGTACCCAGACAGTCGACTTCAG

CDS:non-structural p	422	D F D S V I D C N T C V T Q T V D F S
CDS:polyprotein [Hep Query	1467	D P T F T I E T T T V P Q D A V S R S
	4740	GACCCGACCTTCACCATTGAGACGACGACC GTGCCACAAGACGCGGTGTCACGGCTC
Sbjct	3136	GACCCGACCTTCACCATTGAGACGACGACC GTGCCACAAGACGCGGTGTCACGGCTC
CDS:non-structural p	442	D P T F T I E T T T V P Q D A V S R S
CDS:polyprotein [Hep Query	1487	R R G R T G R G R M G I Y R F V T P G
	4800	CGGGGAGGCAGGACTGGTAGGGGCAGGATGGGCATTTACAGGTTGTGACTCCAGG
Sbjct	3196	CGGGGAGGCAGGACTGGTAGGGGCAGGATGGGCATTTACAGGTTGTGACTCCAGG
CDS:non-structural p	462	R R G R T G R G R M G I Y R F V T P G
CDS:polyprotein [Hep Query	1507	R P S G M F D S S V L C E C Y D A G C
	4860	CGGCCCTCGGGCATGTTGATTCCCTCGGTTCTGTGCGAGTGTATGACGCGGGCTG
Sbjct	3256	CGGCCCTCGGGCATGTTGATTCCCTCGGTTCTGTGCGAGTGTATGACGCGGGCTG
CDS:non-structural p	482	R P S G M F D S S V L C E C Y D A G C
CDS:polyprotein [Hep Query	1527	W Y E L T P A E T S V R L R A Y L N T
	4920	TGGTACGAGCTCACGCCCGCCGAGACCTCAGTTAGGTTGCGGGCTTACCTAAACAC
Sbjct	3316	TGGTACGAGCTCACGCCCGCCGAGACCTCAGTTAGGTTGCGGGCTTACCTAAACAC
CDS:non-structural p	502	W Y E L T P A E T S V R L R A Y L N T
CDS:polyprotein [Hep Query	1547	G L P V C Q D H L E F W E S V F T G L
	4980	GGGTTGCCCGTCTGCCAGGACCATCTGGAGTTCTGGGAGAGCGTCTTACAGGCCT
Sbjct	3376	GGGTTGCCCGTCTGCCAGGACCATCTGGAGTTCTGGGAGAGCGTCTTACAGGCCT
CDS:non-structural p	522	G L P V C Q D H L E F W E S V F T G L
CDS:polyprotein [Hep Query	1567	H I D A H F L S Q T K Q A G D N F P Y
	5040	CACATAGACGCCATTCTGTCCCAGACTAACGAGGCAGGAGACAACCTCCCTA
Sbjct	3436	CACATAGACGCCATTCTGTCCCAGACTAACGAGGCAGGAGACAACCTCCCTA
CDS:non-structural p	542	H I D A H F L S Q T K Q A G D N F P Y
CDS:polyprotein [Hep Query	1587	V A Y Q A T V C A R A Q A P P P S W D
	5100	GTCAGCATACCAGGCTACGGTGTGCCAGGGCTCAGGCTCCACCTCCATCGTGGGA
Sbjct	3496	GTCAGCATACCAGGCTACGGTGTGCCAGGGCTCAGGCTCCACCTCCATCGTGGGA
CDS:non-structural p	562	V A Y Q A T V C A R A Q A P P P S W D
CDS:polyprotein [Hep Query	1607	M W K C L I R L K P T L H G P T P L L
	5160	ATGTGGAAGTGTCTCATACGGCTAAAGCCTACGCTGCACGGGCCAACGCCCTGCT
Sbjct	3556	ATGTGGAAGTGTCTCATACGGCTAAAGCCTACGCTGCACGGGCCAACGCCCTGCT
CDS:non-structural p	582	M W K C L I R L K P T L H G P T P L L
CDS:polyprotein [Hep Query	1627	R L G A V Q N E V T T T H P I T K Y I
	5220	AGGCTGGGAGCCGTTCAAAACGAGGTTACTACCACACACCCATAACCAAATACAT
Sbjct	3616	AGGCTGGGAGCCGTTCAAAACGAGGTTACTACCACACACCCATAACCAAATACAT
CDS:non-structural p	602	R L G A V Q N E V T T T H P I T K Y I
CDS:polyprotein [Hep Query	1647	A C M S A D L E V V T S T W V L V G G
	5280	GCATGCATGTCGGCTGACCTGGAGGTGTCACGAGCACCTGGGTGCTGGTAGGC GG
Sbjct	3676	GCATGCATGTCGGCTGACCTGGAGGTGTCACGAGCACCTGGGTGCTGGTAGGC GG

CDS:non-structural p	622	A C M S A D L E V V T S T W V L V G G
CDS:polyprotein [Hep Query	1667	L A A L A A Y C L T T G S V V I V G R
	5340	CTAGCAGCTCTGGCCGCGTATTGCCTGACAACAGGCAGCGTGGTCATTGTGGCAG
Sbjct	3736	CTAGCAGCTCTGGCCGCGTATTGCCTGACAACAGGCAGCGTGGTCATTGTGGCAG
CDS:non-structural p	642	L A A L A A Y C L T T G S V V I V G R
CDS:polyprotein [Hep Query	1687	I L S G K P A I I P D R E V L Y R E F
	5400	ATCTTGTCCGGAAAGCCGCCATCATTCCCACAGGGAAAGTCCTTACCGGGAGTT
Sbjct	3796	ATCTTGTCCGGAAAGCCGCCATCATTCCCACAGGGAAAGTCCTTACCGGGAGTT
CDS:non-structural p	662	I L S G K P A I I P D R E V L Y R E F
CDS:polyprotein [Hep Query	1707	E M E E C A S H L P Y I E Q G M Q L A
	5460	GAGATGGAAGAGTGCACCTCACACCTCCCTAACATCGAACAGGGAAATGCAGCTCGC
Sbjct	3856	GAGATGGAAGAGTGCACCTCACACCTCCCTAACATCGAACAGGGAAATGCAGCTCGC
CDS:non-structural p	682	E M E E C A S H L P Y I E Q G M Q L A
CDS:polyprotein [Hep Query	1727	Q F K Q K A I G L L Q T A T K Q A E A
	5520	CAATTCAAACAGAAGGCAATCGGGTTGCTGCAAACAGCCACCAAGCAAGCGGAGGC
Sbjct	3916	CAATTCAAACAGAAGGCAATCGGGTTGCTGCAAACAGCCACCAAGCAAGCGGAGGC
CDS:non-structural p	702	Q F K Q K A I G L L Q T A T K Q A E A
CDS:polyprotein [Hep Query	1747	A P V V E S K W R T L E A F W A K H M
	5580	GCTCCCGTGGTGAATCCAAGTGGCGGACCCCTCGAACGCCTCTGGCGAACATAT
Sbjct	3976	GCTCCCGTGGTGAATCCAAGTGGCGGACCCCTCGAACGCCTCTGGCGAACATAT
CDS:non-structural p	722	A P V V E S K W R T L E A F W A K H M
CDS:polyprotein [Hep Query	1767	N F I S G I Q Y L A G L S T L P G N P
	5640	AATTTCATCAGCGGGATACAATATTAGCAGGCTTGTCCACTCTGCCTGGCAACCC
Sbjct	4036	AATTTCATCAGCGGGATACAATATTAGCAGGCTTGTCCACTCTGCCTGGCAACCC
CDS:non-structural p	742	N F I S G I Q Y L A G L S T L P G N P
CDS:polyprotein [Hep Query	1787	I A S L M A F T A S I T S P L T T Q H
	5700	ATAGCATCACTGATGGCATTACAGCCTCTATCACCAAGCCGCTCACCAACCAACA
Sbjct	4096	ATAGCATCACTGATGGCATTACAGCCTCTATCACCAAGCCGCTCACCAACCAACA
CDS:non-structural p	762	I A S L M A F T A S I T S P L T T Q H
CDS:polyprotein [Hep Query	1807	L L F N I L G G W V A A Q L A P P S A
	5760	CTCCTGTTAACATCCTGGGGGATGGGTGGCGCCCAACTTGCTCCTCCCAGCGC
Sbjct	4156	CTCCTGTTAACATCCTGGGGGATGGGTGGCGCCCAACTTGCTCCTCCCAGCGC
CDS:non-structural p	782	L L F N I L G G W V A A Q L A P P S A
CDS:polyprotein [Hep Query	1827	S A F V G A G I A G A A V G S I G L G
	5820	TCTGCTTTCGTAGGCAGCCGGCATCGCTGGAGCGGCTGTTGGCAGCATAGGCCTTGG
Sbjct	4216	TCTGCTTTCGTAGGCAGCCGGCATCGCTGGAGCGGCTGTTGGCAGCATAGGCCTTGG
CDS:non-structural p	802	S A F V G A G I A G A A V G S I G L G
CDS:polyprotein [Hep Query	1847	V L V D I L A G Y G A G V A G A L V A
	5880	GTGCTTGTGGATATTGGCAGGTTATGGAGCAGGGGTGGCAGGCGCCTCGTGGC
Sbjct	4276	GTGCTTGTGGATATTGGCAGGTTATGGAGCAGGGGTGGCAGGCGCCTCGTGGC

CDS:non-structural p	822	V L V D I L A G Y G A G V A G A L V A
CDS:polyprotein [Hep Query	1867	K V M S G E M P S T E D L V N L L P A
	5940	AAGGTCATGAGCGGCAGATGCCCTCCACCGAGGACCTGGTAACCTACTCCCTGC
Sbjct	4336	AAGGTCATGAGCGGCAGATGCCCTCCACCGAGGACCTGGTAACCTACTCCCTGC
CDS:non-structural p	842	K V M S G E M P S T E D L V N L L P A
CDS:polyprotein [Hep Query	1887	L S P G A L V V G V V C A A I L R R H
	6000	CTCTCCCCCTGGCGCCCTAGTCGTGGGTCGTGCGCAGCGATACTGCGTCGGCA
Sbjct	4396	CTCTCCCCCTGGCGCCCTAGTCGTGGGTCGTGCGCAGCGATACTGCGTCGGCA
CDS:non-structural p	862	L S P G A L V V G V V C A A I L R R H
CDS:polyprotein [Hep Query	1907	G P G E G A V Q W M N R L I A F A S R
	6060	GGCCCAGGGAGGGCTGTGCAGTGGATGAACCGGCTGATAGCGTTCGCTCGCG
Sbjct	4456	GGCCCAGGGAGGGCTGTGCAGTGGATGAACCGGCTGATAGCGTTCGCTCGCG
CDS:non-structural p	882	G P G E G A V Q W M N R L I A F A S R
CDS:polyprotein [Hep Query	1927	N H V S P T H Y V P E S D A A A A R V T
	6120	AACCACGTCTCCCCACGCACTATGTGCCTGAGAGCGACGCTGCAGCACGTGTCAC
Sbjct	4516	AACCACGTCTCCCCACGCACTATGTGCCTGAGAGCGACGCTGCAGCACGTGTCAC
CDS:non-structural p	902	N H V S P T H Y V P E S D A A A A R V T
CDS:polyprotein [Hep Query	1947	I L S S L T I T Q L L K R L H Q W I N
	6180	ATCCTCTCTAGTCTTACCATCACTCAGCTGCTGAAGAGGCTTCACCAAGTGGATCAA
Sbjct	4576	ATCCTCTCTAGTCTTACCATCACTCAGCTGCTGAAGAGGCTTCACCAAGTGGATCAA
CDS:non-structural p	922	I L S S L T I T Q L L K R L H Q W I N
CDS:polyprotein [Hep Query	1967	D C S T P C S G S W L R D V W D W I C
	6240	GACTGCTCCACGCCATGCTCGGCTCGTGGCTAAGAGATGTTGGGATTGGATATG
Sbjct	4636	GACTGCTCCACGCCATGCTCGGCTCGTGGCTAAGAGATGTTGGGATTGGATATG
CDS:non-structural p	942	D C S T P C S G S W L R D V W D W I C
CDS:polyprotein [Hep Query	1987	V L T D F K T W L Q S K L L P R L P G
	6300	GTGTTGACTGATTCAAGACCTGGCTCCAGTCCAAGCTCCTGCCCGATTGCCGGG
Sbjct	4696	GTGTTGACTGATTCAAGACCTGGCTCCAGTCCAAGCTCCTGCCCGATTGCCGGG
CDS:non-structural p	962	V L T D F K T W L Q S K L L P R L P G
CDS:polyprotein [Hep Query	2007	P F F S C Q R G Y K G V W R G D G I M
	6360	CCCTCTTCTCATGTCAACGTGGTACAAGGGAGTCTGGCGGGGCGACGGCATCAT
Sbjct	4756	CCCTCTTCTCATGTCAACGTGGTACAAGGGAGTCTGGCGGGGCGACGGCATCAT
CDS:non-structural p	982	P F F S C Q R G Y K G V W R G D G I M
CDS:polyprotein [Hep Query	2027	T T C P C G A Q I T G H V K N G S M R
	6420	ACCACCTGCCATGTGGAGCACAGATCACCGGACATGTGAAAAACGGTTCCATGAG
Sbjct	4816	ACCACCTGCCATGTGGAGCACAGATCACCGGACATGTGAAAAACGGTTCCATGAG
CDS:non-structural p	1002	T T C P C G A Q I T G H V K N G S M R
CDS:polyprotein [Hep Query	2047	V G P R T C S N T W H G T F P I N A Y
	6480	GTGGGGCCTAGGACCTGTAGTAACACGTGGCATGGAACATTCCTTAAACCGCGTA
Sbjct	4876	GTGGGGCCTAGGACCTGTAGTAACACGTGGCATGGAACATTCCTTAAACCGCGTA

CDS:non-structural p	1022	V G P R T C S N T W H G T F P I N A Y
CDS:polyprotein [Hep Query	2067	T G P C T P S P A P N Y S R A L W R V
	6540	ACGGGCCCCCTGCACGCCCTCCCGGCCAAATTATTCTAGGGCGCTGTGGCGGGT
Sbjct	4936	
CDS:non-structural p	1042	ACGGGCCCCCTGCACGCCCTCCCGGCCAAATTATTCTAGGGCGCTGTGGCGGGT
	T G P C T P S P A P N Y S R A L W R V	
CDS:polyprotein [Hep Query	2087	A E E Y V E V T R V G D F H Y V T G M
	6600	GCTGAGGAGTACGTGGAGGTTACGCCGGTGGGGATTCCACTACGTGACGGCAT
Sbjct	4996	
CDS:non-structural p	1062	GCTGAGGAGTACGTGGAGGTTACGCCGGTGGGGATTCCACTACGTGACGGCAT
	A E E Y V E V T R V G D F H Y V T G M	
CDS:polyprotein [Hep Query	2107	T D N V K C P C Q V P A P E F F T E V
	6660	ACTGACAACGTAAAGTGCCCGTGTCAAGGTTCCGGCCCCGAATTCTTCACAGAAAGT
Sbjct	5056	
CDS:non-structural p	1082	ACTGACAACGTAAAGTGCCCGTGTCAAGGTTCCGGCCCCGAATTCTTCACAGAAAGT
	T D N V K C P C Q V P A P E F F T E V	
CDS:polyprotein [Hep Query	2127	G V R L H R Y A P A C K P L L R E E V
	6720	GGGGTGCGGTTGCACAGGTACGCTCCAGCGTCAAACCCCTCCTACGGGAGGAGT
Sbjct	5116	
CDS:non-structural p	1102	GGGGTGCGGTTGCACAGGTACGCTCCAGCGTCAAACCCCTCCTACGGGAGGAGT
	G V R L H R Y A P A C K P L L R E E V	
CDS:polyprotein [Hep Query	2147	F L V G L N Q Y L V G S Q L P C E P E
	6780	TTCCCTGGTCGGGCTCAATCAATACCTGGTGGGTACAGCTCCCATGCGAGCCCAG
Sbjct	5176	
CDS:non-structural p	1122	TTCCCTGGTCGGGCTCAATCAATACCTGGTGGGTACAGCTCCCATGCGAGCCCAG
	F L V G L N Q Y L V G S Q L P C E P E	
CDS:polyprotein [Hep Query	2167	D V A V L T S M L T D P S H I T A E T
	6840	GACGTAGCAGTGCCTACTCCATGCTACCGGACCCCTCCCACATTACGGCGGAGAC
Sbjct	5236	
CDS:non-structural p	1142	GACGTAGCAGTGCCTACTCCATGCTACCGGACCCCTCCCACATTACGGCGGAGAC
	D V A V L T S M L T D P S H I T A E T	
CDS:polyprotein [Hep Query	2187	K R R L A R G S P P S L A S S S A S Q
	6900	AAGCGTAGGCTGGCCAGGGATCTCCCCCTCCTGGCCAGCTCATCAGCTAGCCA
Sbjct	5296	
CDS:non-structural p	1162	AAGCGTAGGCTGGCCAGGGATCTCCCCCTCCTGGCCAGCTCATCAGCTAGCCA
	K R R L A R G S P P S L A S S S A S Q	
CDS:polyprotein [Hep Query	2207	S A P S L K A T C T T R H D S P D A D
	6960	TCTGCGCCTCCTTGAAGGCAACATGCACTACCCGTACGTACTCCCCGGACGCTGA
Sbjct	5356	
CDS:non-structural p	1182	TCTGCGCCTCCTTGAAGGCAACATGCACTACCCGTACGTACTCCCCGGACGCTGA
	S A P S L K A T C T T R H D S P D A D	
CDS:polyprotein [Hep Query	2227	S A P S L K A T C T T R H D S P D A D
	7020	I E A N L L W R Q E M G G N I T R V E
Sbjct	5416	ATCGAGGCCAACCTCCTGTGGCGCAGGAGATGGCGGGAACATCACCCGCGTGG
CDS:non-structural p	1202	
	ATCGAGGCCAACCTCCTGTGGCGCAGGAGATGGCGGGAACATCACCCGCGTGG	
	I E A N L L W R Q E M G G N I T R V E	
CDS:polyprotein [Hep Query	2247	E N K V V I L D S F E P L Q A E E D E
	7080	GAAAATAAGGTAGTAATTGGACTCTTCGAGCCGCTCAAGCGGAGGAGGATGA
Sbjct	5476	
	GAAAATAAGGTAGTAATTGGACTCTTCGAGCCGCTCAAGCGGAGGAGGATGA	

CDS:non-structural p	1222	E N K V V I L D S F E P L Q A E E D E
CDS:polyprotein [Hep Query	2267	E V S V P A E I L R R S R K F P R A M
	7140	GAAGTATCCGTTCCGGCGGAGATCCTGCGGAGGTCCAGGAAATTCCCTCGAGCGAT
Sbjct	5536	
CDS:non-structural p	1242	E V S V P A E I L R R S R K F P R A M
CDS:polyprotein [Hep Query	2287	I W A R P D Y N P P L L E S W K D P D
	7200	ATATGGGCACGCCCGGATTACAACCCCTCCACTGTTAGAGTCCTGAAAGGACCCGGA
Sbjct	5596	
CDS:non-structural p	1262	I W A R P D Y N P P L L E S W K D P D
CDS:polyprotein [Hep Query	2307	V P P V V H G C P L P P A K A P P I P
	7260	GTCCCTCCAGTGGTACACGGGTGTCATTGCCGCTGCCAAGGCCCTCCGATACC
Sbjct	5656	
CDS:non-structural p	1282	V P P V V H G C P L P P A K A P P I P
CDS:polyprotein [Hep Query	2327	P R R K R T V V L S E S T V S S A L A
	7320	CCACGGAGGAAGAGGACGGTTGTCCTGTCAAATCTACCGTGTCTCTGCCCTGGC
Sbjct	5716	
CDS:non-structural p	1302	CCACGGAGGAAGAGGACGGTTGTCCTGTCAAATCTACCGTGTCTCTGCCCTGGC
P R R K R T V V L S E S T V S S A L A		
CDS:polyprotein [Hep Query	2347	L A T K T F G S S E S S A V D S G T A
	7380	CTCGCCACAAAGACCTCGGCAGCTCGAATCGTCGGCGTCGACAGCGGCACGGC
Sbjct	5776	
CDS:non-structural p	1322	CTCGCCACAAAGACCTCGGCAGCTCGAATCGTCGGCGTCGACAGCGGCACGGC
L A T K T F G S S E S S A V D S G T A		
CDS:polyprotein [Hep Query	2367	A S P D Q P S D D G D A G S D V E S Y
	7440	GCCTCTCCTGACCAGCCCTCCGACGACGGCGACGCCGGATCCGACGTTGAGTCGTA
Sbjct	5836	
CDS:non-structural p	1342	GCCTCTCCTGACCAGCCCTCCGACGACGGCGACGCCGGATCCGACGTTGAGTCGTA
A S P D Q P S D D G D A G S D V E S Y		
CDS:polyprotein [Hep Query	2387	S M P P L E G E P G D P D L S D G S W
	7500	TCCATGCCCTCTGAGGGGGAGCCGGGGATCCGATCTCAGCGACGGGTCTTG
Sbjct	5896	
CDS:non-structural p	1362	TCCATGCCCTCTGAGGGGGAGCCGGGGATCCGATCTCAGCGACGGGTCTTG
S M P P L E G E P G D P D L S D G S W		
CDS:polyprotein [Hep Query	2407	T V S E E A S E D V V C C S M S Y T W
	7560	ACCGTAAGCGAGGAGGCTAGTGAGGACGCTGCTGCTCGATGTCCTACACATG
Sbjct	5956	
CDS:non-structural p	1382	ACCGTAAGCGAGGAGGCTAGTGAGGACGCTGCTGCTCGATGTCCTACACATG
T V S E E A S E D V V C C S M S Y T W		
CDS:polyprotein [Hep Query	2427	G A L I T P C A A E E T K L P I N A L
	7620	GGGCCCTGATCACGCCATGCGCTGCGAGGAAACCAAGCTGCCATCAATGCACT
Sbjct	6016	
CDS:non-structural p	1402	GGGCCCTGATCACGCCATGCGCTGCGAGGAAACCAAGCTGCCATCAATGCACT
G A L I T P C A A E E T K L P I N A L		
CDS:polyprotein [Hep Query	2447	N S L L R H H N L V Y A T T S R S A S
	7680	AACTCTTGCTCCGTACCCACAATTGGTCTATGCTACAACATCTCGCAGCGCAAG
Sbjct	6076	
AACTCTTGCTCCGTACCCACAATTGGTCTATGCTACAACATCTCGCAGCGCAAG		

CDS:non-structural p	1422	N S L L R H H N L V Y A T T S R S A S
CDS:polyprotein [Hep Query	2467	R Q K K V T F D R L Q V L D D H Y R D
	7740	CGGCAGAAGAAGGTACCTTTGACAGACTGCAGGTCTGGACGACCACTACGGGA
Sbjct	6136	CGGCAGAAGAAGGTACCTTTGACAGACTGCAGGTCTGGACGACCACTACGGGA
CDS:non-structural p	1442	R Q K K V T F D R L Q V L D D H Y R D
CDS:polyprotein [Hep Query	2487	L K E M K A K A S T V K A K L L S V E
	7800	CTCAAGGAGATGAAGGCCAAGCGTCCACAGTTAAGGCTAAACTCTATCCGTGGA
Sbjct	6196	CTCAAGGAGATGAAGGCCAAGCGTCCACAGTTAAGGCTAAACTCTATCCGTGGA
CDS:non-structural p	1462	L K E M K A K A S T V K A K L L S V E
CDS:polyprotein [Hep Query	2507	A C K L T P P H S A R S K F G Y G A K
	7860	GCCTGTAAGCTGACGCCACATTGGCCAGATCTAAATTGGCTATGGGCAA
Sbjct	6256	GCCTGTAAGCTGACGCCACATTGGCCAGATCTAAATTGGCTATGGGCAA
CDS:non-structural p	1482	A C K L T P P H S A R S K F G Y G A K
CDS:polyprotein [Hep Query	2527	V R N L S S K A V N H I R S V W K D L
	7920	GTCCGGAACCTATCCAGCAAGGCCGTTAACCATCCGCTCCGTGTGGAAGGACTT
Sbjct	6316	GTCCGGAACCTATCCAGCAAGGCCGTTAACCATCCGCTCCGTGTGGAAGGACTT
CDS:non-structural p	1502	V R N L S S K A V N H I R S V W K D L
CDS:polyprotein [Hep Query	2547	E D T E T P I D T T I M A K N E V F C
	7980	GAAGACACTGAGACACCAATTGACACCACATGGCAAAAAATGAGGTTTCTG
Sbjct	6376	GAAGACACTGAGACACCAATTGACACCACATGGCAAAAAATGAGGTTTCTG
CDS:non-structural p	1522	E D T E T P I D T T I M A K N E V F C
CDS:polyprotein [Hep Query	2567	Q P E K G G R K P A R L I V F P D L G
	8040	CAACCAGAGAAGGGGGCCGAAGCCAGCTCGCCTATCGTATTCCCAGATTTGGG
Sbjct	6436	CAACCAGAGAAGGGGGCCGAAGCCAGCTCGCCTATCGTATTCCCAGATTTGGG
CDS:non-structural p	1542	Q P E K G G R K P A R L I V F P D L G
CDS:polyprotein [Hep Query	2587	R V C E K M A L Y D V V S T L P Q A V
	8100	CGTGTGTGCGAGAAAATGCCCTTACGATGTGGCTCCACCCCTCCCTCAGGCCGT
Sbjct	6496	CGTGTGTGCGAGAAAATGCCCTTACGATGTGGCTCCACCCCTCCCTCAGGCCGT
CDS:non-structural p	1562	R V C E K M A L Y D V V S T L P Q A V
CDS:polyprotein [Hep Query	2607	G S S Y G F Q Y S P G Q R V E F L V N
	8160	GGCTCTTCATACGGATTCCAATACTCTCCTGGACAGCGGGTCGAGTTCTGGTAA
Sbjct	6556	GGCTCTTCATACGGATTCCAATACTCTCCTGGACAGCGGGTCGAGTTCTGGTAA
CDS:non-structural p	1582	G S S Y G F Q Y S P G Q R V E F L V N
CDS:polyprotein [Hep Query	2627	W K A K K C P M G F A Y D T R C F D S
	8220	TGGAAAGCGAAGAAATGCCCTATGGGCTTCGCATATGACACCCGCTTTGACTC
Sbjct	6616	TGGAAAGCGAAGAAATGCCCTATGGGCTTCGCATATGACACCCGCTTTGACTC
CDS:non-structural p	1602	W K A K K C P M G F A Y D T R C F D S
CDS:polyprotein [Hep Query	2647	V T E N D I R V E E S I Y Q C C D L A
	8280	GTCACTGAGAATGACATCCGTGTTGAGGAGTCAATCTACCAATGTTGTGACTTGGC
Sbjct	6676	GTCACTGAGAATGACATCCGTGTTGAGGAGTCAATCTACCAATGTTGTGACTTGGC

CDS:non-structural p	1622	V T E N D I R V E E S I Y Q C C D L A
CDS:polyprotein [Hep Query	2667	E A R Q A I R S L T E R L Y I G G P L
	8340	GAAGCCAGACAGGCCATAAGGTCGCTCACAGAGCGGCTTACATCGGGGGCCCCCT
Sbjct	6736	
CDS:non-structural p	1642	GAAGCCAGACAGGCCATAAGGTCGCTCACAGAGCGGCTTACATCGGGGGCCCCCT
E A R Q A I R S L T E R L Y I G G P L		
CDS:polyprotein [Hep Query	2687	N S K G Q N C G Y R R C R A S G V L T
	8400	AATTCTAAAGGGCAGAAC T GCGGCTATGCCGGTGCCGCGAGCGGTGTACTGAC
Sbjct	6796	
CDS:non-structural p	1662	AATTCTAAAGGGCAGAAC T GCGGCTATGCCGGTGCCGCGAGCGGTGTACTGAC
N S K G Q N C G Y R R C R A S G V L T		
CDS:polyprotein [Hep Query	2707	S C G N T L T C Y L K A A A A A C R A A
	8460	AGCTGCGGTAATACCTCACATGTTACTTGAAGGCCGCTGCGGCCTGTCGAGCTGC
Sbjct	6856	
CDS:non-structural p	1682	AGCTGCGGTAATACCTCACATGTTACTTGAAGGCCGCTGCGGCCTGTCGAGCTGC
S C G N T L T C Y L K A A A A A C R A A		
CDS:polyprotein [Hep Query	2727	L Q D C T M L V C G D D L V V V I C E S
	8520	CTCCAGGACTGCACGATGCTCGTATGCGGAGACGACCTTGTCTGTTATCTGTGAAAG
Sbjct	6916	
CDS:non-structural p	1702	CTCCAGGACTGCACGATGCTCGTATGCGGAGACGACCTTGTCTGTTATCTGTGAAAG
L Q D C T M L V C G D D L V V V I C E S		
CDS:polyprotein [Hep Query	2747	G T Q E D E A S L R A F T E A M T R Y
	8580	GGGACCCAAGAGGACGAGGCGAGCCTACGGGCTTCACGGAGGCTATGACTAGATA
Sbjct	6976	
CDS:non-structural p	1722	GGGACCCAAGAGGACGAGGCGAGCCTACGGGCTTCACGGAGGCTATGACTAGATA
G T Q E D E A S L R A F T E A M T R Y		
CDS:polyprotein [Hep Query	2767	A P P G D P P K P E Y D L E L I T S C
	8640	GCCCCCCCCTGGGGACCCGCCAAACCAGAACATGACTTGGAGTTGATAACATCATG
Sbjct	7036	
CDS:non-structural p	1742	GCCCCCCCCTGGGGACCCGCCAAACCAGAACATGACTTGGAGTTGATAACATCATG
A P P G D P P K P E Y D L E L I T S C		
CDS:polyprotein [Hep Query	2787	S N V S V A H D A S G K R V Y Y L T R
	8700	TCCAATGTGTCA G TGCGCACGATGCATCTGGCAAAAGGGTGTACTATCTCACCCG
Sbjct	7096	
CDS:non-structural p	1762	TCCAATGTGTCA G TGCGCACGATGCATCTGGCAAAAGGGTGTACTATCTCACCCG
S N V S V A H D A S G K R V Y Y L T R		
CDS:polyprotein [Hep Query	2807	P T T P L A R A A W E T A R H T P V N
	8760	CCCACCA CCCC CTGGCGGGCTGCGTGGGAGACAGCTAGACACACTCCAGTC
Sbjct	7156	
CDS:non-structural p	1782	CCCACCA CCCC CTGGCGGGCTGCGTGGGAGACAGCTAGACACACTCCAGTC
P T T P L A R A A W E T A R H T P V N		
CDS:polyprotein [Hep Query	2827	W L G N I I M Y A P T L W A R M I L M
	8820	TGGCTAGGCAACATCATCATGTATGCGCCCACCTTGTGGCAAGGATGATCCTGAT
Sbjct	7216	
CDS:non-structural p	1802	TGGCTAGGCAACATCATCATGTATGCGCCCACCTTGTGGCAAGGATGATCCTGAT
W L G N I I M Y A P T L W A R M I L M		
CDS:polyprotein [Hep Query	2847	H F F S I L L A Q E Q L E K A L D C Q
	8880	CATTCTTCTCCATCCTCTAGCTAGGAACAACTTGAAAAAGCCCTAGATTGTCA
Sbjct	7276	
CATTCTTCTCCATCCTCTAGCTAGGAACAACTTGAAAAAGCCCTAGATTGTCA		

CDS:non-structural p	1822	H F F S I L L A Q E Q L E K A L D C Q
CDS:polyprotein [Hep Query	2867 8940	Y G A C Y S I E P L D L P Q I I Q R L TACGGGGCCTGTTACTCCATTGAGCCACTTGACCTACCTCAGATCATTCAACGACT
Sbjct	7336	TACGGGGCCTGTTACTCCATTGAGCCACTTGACCTACCTCAGATCATTCAACGACT
CDS:non-structural p	1842	Y G A C Y S I E P L D L P Q I I Q R L
CDS:polyprotein [Hep Query	2887 9000	G L S A F S L H S Y S P G E I N R V A GGCCTTAGCGCATTTCACTCCATAGTTACTCTCCAGGTGAGATCAATAGGGTGGC
Sbjct	7396	GGCCTTAGCGCATTTCACTCCATAGTTACTCTCCAGGTGAGATCAATAGGGTGGC
CDS:non-structural p	1862	G L S A F S L H S Y S P G E I N R V A
CDS:polyprotein [Hep Query	2907 9060	C L R K L G V P P L R V W R H R A R S TGCCCTAGGAAACTTGGGGTACCGCCCTTGCAGTCTGGAGACATCGGGCCAGAAG
Sbjct	7456	TGCCCTAGGAAACTTGGGGTACCGCCCTTGCAGTCTGGAGACATCGGGCCAGAAG
CDS:non-structural p	1882	C L R K L G V P P L R V W R H R A R S
CDS:polyprotein [Hep Query	2927 9120	R A R L L S Q G G R A A T C G K Y L F CGCGCTAGGCTACTGTCCCAGGGGGGGAGGGCTGCCACTTGTGGCAAGTACCTCTT
Sbjct	7516	CGCGCTAGGCTACTGTCCCAGGGGGGGAGGGCTGCCACTTGTGGCAAGTACCTCTT
CDS:non-structural p	1902	R A R L L S Q G G R A A T C G K Y L F
CDS:polyprotein [Hep Query	2947 9180	W A V R T K L K L T P I P A A S Q L D TGGGCAGTAAGGACCAAGCTCAAACACTCCAATCCGGCTCGTCCCAGTTGGA
Sbjct	7576	TGGGCAGTAAGGACCAAGCTCAAACACTCCAATCCGGCTCGTCCCAGTTGGA
CDS:non-structural p	1922	W A V R T K L K L T P I P A A S Q L D
CDS:polyprotein [Hep Query	2967 9240	S S W F V A G Y S G G D I Y H S L S R TCCAGCTGGTCGTTGCTGGTTACAGCGGGGGAGACATATATCACAGCCTGTCTCG
Sbjct	7636	TCCAGCTGGTCGTTGCTGGTTACAGCGGGGGAGACATATATCACAGCCTGTCTCG
CDS:non-structural p	1942	S S W F V A G Y S G G D I Y H S L S R
CDS:polyprotein [Hep Query	2987 9300	R P R W F M W C L L L S V G V G I Y CGACCCCGCTGGTCATGTGGTGCCTACTCCTACTTCTGTAGGGTAGGCATCTA
Sbjct	7696	CGACCCCGCTGGTCATGTGGTGCCTACTCCTACTTCTGTAGGGTAGGCATCTA
CDS:non-structural p	1962	R P R W F M W C L L L S V G V G I Y
CDS:polyprotein [Hep Query	3007 9360	L P N R CTCCCCAACCGATGAACGGGGAGCTAAACACTCCAGGCCAATAGGCCATCCTG 9
Sbjct	7756	CTCCCCAACCGATGAACGGGGAGCTAAACACTCCAGGCCAATAGGCCATCCTG 7
CDS:non-structural p	1982	L P N R

Score = 719 bits (374), Expect = 0.0
 Identities = 388/388 (100%), Gaps = 0/388 (0%)
 Strand=Plus/Plus

Query	2	CCAGCCCCCGATTGGGGCGACACTCCACCATAGATCACTCCCTGTGAGGAAC	TAC
Sbjct	2	CCAGCCCCCGATTGGGGCGACACTCCACCATAGATCACTCCCTGTGAGGAAC	TAC
Query	62	CTTCACGCAGAAAGCGTCTAGCCATGGCGTTAGTATGAGTGTGCGCAGCCTCC	AAGG
Sbjct	62	CTTCACGCAGAAAGCGTCTAGCCATGGCGTTAGTATGAGTGTGCGCAGCCTCC	AAGG
Query	122	CCCCCTCCCGGGAGAGCCATAGTGGTCTGCGGAACCGGTGAGTACACCGGA	ATTGCC
Sbjct	122	CCCCCTCCCGGGAGAGCCATAGTGGTCTGCGGAACCGGTGAGTACACCGGA	ATTGCC
Query	182	ACGACCGGGTCCTTCTTGGATCAACCGCTCAATGCCTGGAGATTGGCGTGC	CCC
Sbjct	182	ACGACCGGGTCCTTCTTGGATCAACCGCTCAATGCCTGGAGATTGGCGTGC	CCC
Query	242	CGAGACTGCTAGCCGAGTAGTGGTGGTGC	GAAAGGCCTTGTGGTACTGCCTGATA
Sbjct	242	CGAGACTGCTAGCCGAGTAGTGGTGGTGC	GAAAGGCCTTGTGGTACTGCCTGATA
CDS:polyprotein [Hep	1		M S T N P K
Query	302	TGCTTGCAGTGCCCCGGGAGGTCTCGTAGACCGTGCACCATGAGCACGAAT	CCTAA
Sbjct	302	TGCTTGCAGTGCCCCGGGAGGTCTCGTAGACCGTGCACCATGAGCACGAAT	CCTAA
CDS:core-neo fusion	1		M S T N P K
CDS:polyprotein [Hep	8	Q R K T K R N T N	
Query	362	TCAAAGAAAAACCAAACGTAACACCAAC	389
Sbjct	362	TCAAAGAAAAACCAAACGTAACACCAAC	389
CDS:core-neo fusion	8	Q R K T K R N T N	

Score = 189 bits (98), Expect = 2e-43
 Identities = 98/98 (100%), Gaps = 0/98 (0%)
 Strand=Plus/Plus

Query	9508	GGTGGCTCCATCTTAGCCCTAGTCACGGCTAGCTGTGAAAGGTCCGTGAGCCGCTTGACT	9567
Sbjct	7904	GGTGGCTCCATCTTAGCCCTAGTCACGGCTAGCTGTGAAAGGTCCGTGAGCCGCTTGACT	7963
Query	9568	GCAGAGAGTGCTGATACTGGCCTCTGCAGATCAAGT	9605
Sbjct	7964	GCAGAGAGTGCTGATACTGGCCTCTGCAGATCAAGT	8001

CPU time: 0.15 user secs. 0.05 sys. secs 0.20 total secs.

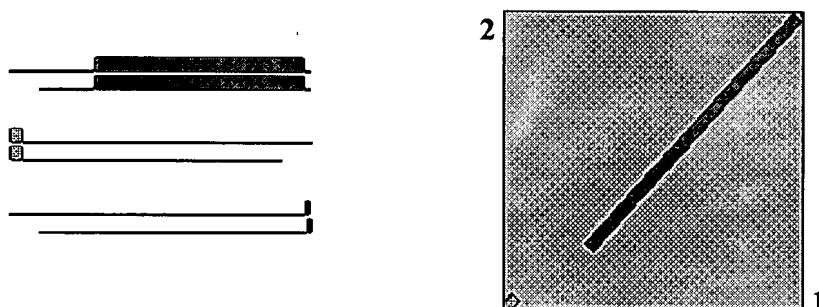
BLAST 2 SEQUENCES RESULTS VERSION BLASTN 2.2.17 [Aug-26-2007]

Match: 1 Mismatch: -2 gap open: 5 gap extension: 2

x_dropoff: 0 expect: 10.0000 wordsize: 11 Filter View option StandardMasking character option X for protein, n for nucleotide Masking color option Black Show CDS translation

Sequence 1: gi|5420376|Hepatitis C virus type 1b complete genome, isolate Con1
 Length = 9604 (1 .. 9605)

Sequence 2: gi|5441837|Hepatitis C virus replicon I389/NS2-3'UTR
 Length = 8648 (1 .. 8649)



NOTE: Bitscore and expect value are calculated based on the size of the nr database.

NOTE: If protein translation is reversed, please repeat the search with reverse strand of the query sequence.



Score = 1.261e+04 bits (6560), Expect = 0.0
 Identities = 6646/6646 (100%), Gaps = 0/6646 (0%)
 Strand=Plus/Plus

CDS:polyprotein [Hep	809	A M D R E M A A S C G G A V F V G L I
Query	2767	CCATGGACCGGGAGATGGCAGCATCGTGCAGGCGCGGTTTCGTAGGTCTGATA
Sbjct	1811	CCATGGACCGGGAGATGGCAGCATCGTGCAGGCGCGGTTTCGTAGGTCTGATA
CDS:non-structural p	1	.. M D R E M A A S C G G A V F V G L I
CDS:polyprotein [Hep	829	L T L S P H Y K L F L A R L I W W L Q
Query	2827	TGACCTTGTCAACCGCACTATAAGCTGTTCTCGCTAGGCTCATATGGTGGTTACAA
Sbjct	1871	TGACCTTGTCAACCGCACTATAAGCTGTTCTCGCTAGGCTCATATGGTGGTTACAA

CDS:non-structural p	20	L T L S P H Y K L F L A R L I W W L Q
CDS:polyprotein [Hep Query	849	F I T R A E A H L Q V W I P P L N V R
	2887	TTATCACCAAGGGCGAGGCACACTGCAAGTGTGGATCCCCCCCCCTAACGTCGG
Sbjct	1931	
CDS:non-structural p	40	F I T R A E A H L Q V W I P P L N V R
CDS:polyprotein [Hep Query	869	G R D A V I L L T C A I H P E L I F T
	2947	GCCCGCATGCCGTACATCCTCCTCACGTGCGCATCCACCCAGAGCTAACCTTACC
Sbjct	1991	
CDS:non-structural p	60	G R D A V I L L T C A I H P E L I F T
CDS:polyprotein [Hep Query	889	T K I L L A I L G P L M V L Q A G I T
	3007	CCAAAATCTGCTGCCATACTCGGTCCACTCATGGTGCTCCAGGCTGGTATAACC
Sbjct	2051	
CDS:non-structural p	80	T K I L L A I L G P L M V L Q A G I T
CDS:polyprotein [Hep Query	909	V P Y F V R A H G L I R A C M L V R K
	3067	TGCCGTACTTCGTGCGCCACACGGGCTATTGTGCATGCATGCTGGTGCAGAAG
Sbjct	2111	
CDS:non-structural p	100	V P Y F V R A H G L I R A C M L V R K
CDS:polyprotein [Hep Query	929	A G G H Y V Q M A L M K L A A L T G T
	3127	CTGGGGGTCAATTATGTCCAAATGGCTCTCATGAAGTTGCCGACTGACAGGTACGT
Sbjct	2171	
CDS:non-structural p	120	A G G H Y V Q M A L M K L A A L T G T
CDS:polyprotein [Hep Query	949	V Y D H L T P L R D W A H A G L R D L
	3187	TTTATGACCATCTCACCCACTGCGGGACTGGGCCACCGGGCCTACGAGACCTT
Sbjct	2231	
CDS:non-structural p	140	V Y D H L T P L R D W A H A G L R D L
CDS:polyprotein [Hep Query	969	V A V E P V V F S D M E T K V I T W G
	3247	TGGCAGTTGAGCCCGTCGTCTCTGTATGGAGACCAAGGTTATCACCTGGGG
Sbjct	2291	
CDS:non-structural p	160	V A V E P V V F S D M E T K V I T W G
CDS:polyprotein [Hep Query	989	D T A A C G D I I L G L P V S A R R G
	3307	ACACCGCGGCGTGTGGGACATCATCTGGGCCCTGCCGTCTCCGCCCGCAGGGGG
Sbjct	2351	
CDS:non-structural p	180	D T A A C G D I I L G L P V S A R R G
CDS:polyprotein [Hep Query	1009	E I H L G P A D S L E G Q G W R L L A
	3367	AGATACATCTGGGACCGGCAGACAGCCTTGAAGGGCAGGGTGGCACTCCTCGCG
Sbjct	2411	
CDS:non-structural p	200	E I H L G P A D S L E G Q G W R L L A
CDS:polyprotein [Hep Query	1029	I T A Y S Q Q T R G L L G C I I T S L
	3427	TTACGGCCTACTCCAAACAGACGCGAGGCCTACTTGGCTGCATCATCACTAGCCTC
Sbjct	2471	

CDS:non-structural p	220	I T A Y S Q Q T R G L L G C I I T S L
CDS:polyprotein [Hep Query	1049	G R D R N Q V E G E V Q V V V S T A T Q
	3487	GCCGGGACAGGAACCAGGTCGAGGGGGAGGTCCAAGTGGTCTCCACCGCAACACAA
Sbjct	2531	GCCGGGACAGGAACCAGGTCGAGGGGGAGGTCCAAGTGGTCTCCACCGCAACACAA
CDS:non-structural p	240	G R D R N Q V E G E V Q V V V S T A T Q
CDS:polyprotein [Hep Query	1069	F L A T C V N G V C W T V Y H G A G S
	3547	TCCTGGGCACCTGCGTCAATGGCGTGTGTTGACTGTCTATCATGGTGCCGGCTCA
Sbjct	2591	TCCTGGGCACCTGCGTCAATGGCGTGTGTTGACTGTCTATCATGGTGCCGGCTCA
CDS:non-structural p	260	F L A T C V N G V C W T V Y H G A G S
CDS:polyprotein [Hep Query	1089	T L A G P K G P I T Q M Y T N V D Q D
	3607	CCCTTGCCGGCCAAAGGGCCAATCACCAAATGTACACCAATGTGGACCAGGAC
Sbjct	2651	CCCTTGCCGGCCAAAGGGCCAATCACCAAATGTACACCAATGTGGACCAGGAC
CDS:non-structural p	280	T L A G P K G P I T Q M Y T N V D Q D
CDS:polyprotein [Hep Query	1109	V G W Q A P P G A R S L T P C T C G S
	3667	TCGGCTGGCAAGGCCCGGGCGCGTCCCTGACACCATGCACCTGCGGCAGC
Sbjct	2711	TCGGCTGGCAAGGCCCGGGCGCGTCCCTGACACCATGCACCTGCGGCAGC
CDS:non-structural p	300	V G W Q A P P G A R S L T P C T C G S
CDS:polyprotein [Hep Query	1129	D L Y L V T R H A D V I P V R R R G D
	3727	ACCTTTACTTGGTCACGAGGCATGCCGATGTCATTCCGGTGCGCCGGCGGGCGAC
Sbjct	2771	ACCTTTACTTGGTCACGAGGCATGCCGATGTCATTCCGGTGCGCCGGCGGGCGAC
CDS:non-structural p	320	D L Y L V T R H A D V I P V R R R G D
CDS:polyprotein [Hep Query	1149	R G S L L S P R P V S Y L K G S S G G
	3787	GGGGGAGCCTACTCTCCCCAGGCCGTCTCTACTTGAAGGGCTCTCGGGCGGT
Sbjct	2831	GGGGGAGCCTACTCTCCCCAGGCCGTCTCTACTTGAAGGGCTCTCGGGCGGT
CDS:non-structural p	340	R G S L L S P R P V S Y L K G S S G G
CDS:polyprotein [Hep Query	1169	L L C P S G H A V G I F R A A V C T R
	3847	TGCTCTGCCCTCGGGCACGCTGTGGCATCTTCGGCTGCCGTGTGCACCCGA
Sbjct	2891	TGCTCTGCCCTCGGGCACGCTGTGGCATCTTCGGCTGCCGTGTGCACCCGA
CDS:non-structural p	360	L L C P S G H A V G I F R A A V C T R
CDS:polyprotein [Hep Query	1189	V A K A V D F V P V E S M E T T M R S
	3907	TTGCGAAGGCGGTGGACTTGTACCCGTCGAGTCTATGGAAACCACATGCGGTCC
Sbjct	2951	TTGCGAAGGCGGTGGACTTGTACCCGTCGAGTCTATGGAAACCACATGCGGTCC
CDS:non-structural p	380	V A K A V D F V P V E S M E T T M R S
CDS:polyprotein [Hep Query	1209	V F T D N S S P P A V P Q T F Q V A H
	3967	TCTTCACGGACAACCTCGTCCCTCCGGCGTACCGCAGACATTCCAGGTGGCCCAT
Sbjct	3011	TCTTCACGGACAACCTCGTCCCTCCGGCGTACCGCAGACATTCCAGGTGGCCCAT
CDS:non-structural p	400	V F T D N S S P P A V P Q T F Q V A H
CDS:polyprotein [Hep Query	1229	H A P T G S G K S T K V P A A Y A A Q
	4027	ACGCCCTACTGGTAGCGGCAAGAGCACTAAGGTGCCGGCTGCGTATGCAGCCCAA
Sbjct	3071	ACGCCCTACTGGTAGCGGCAAGAGCACTAAGGTGCCGGCTGCGTATGCAGCCCAA

CDS:non-structural p	420	H A P T G S G K S T K V P A A Y A A Q
CDS:polyprotein [Hep Query	1249	Y K V L V L N P S V A A T L G F G A Y
	4087	ATAAGGTGCTTGTCCCTGAACCCGTCGCCGACCCCTAGGTTCGGGCGTAT
Sbjct	3131	
CDS:non-structural p	440	ATAAGGTGCTTGTCCCTGAACCCGTCGCCGACCCCTAGGTTCGGGCGTAT
Y K V L V L N P S V A A T L G F G A Y		
CDS:polyprotein [Hep Query	1269	S K A H G I D P N I R T G V R T I T T
	4147	CTAAGGCACATGGTATCGACCTAACATCAGAACCGGGTAAGGACCATCACCACG
Sbjct	3191	
CDS:non-structural p	460	CTAAGGCACATGGTATCGACCTAACATCAGAACCGGGTAAGGACCATCACCACG
S K A H G I D P N I R T G V R T I T T		
CDS:polyprotein [Hep Query	1289	A P I T Y S T Y G K F L A D D G G C S G
	4207	CCCCCATCACGTACTCCACCTATGGCAAGTTCTTGCACGGTGGTTGCTCTGGG
Sbjct	3251	
CDS:non-structural p	480	CCCCCATCACGTACTCCACCTATGGCAAGTTCTTGCACGGTGGTTGCTCTGGG
A P I T Y S T Y G K F L A D D G G C S G		
CDS:polyprotein [Hep Query	1309	A Y D I I I C D E C H S T D S T T I L
	4267	CCTATGACATCATAATATGTGATGAGTGCCACTCAACTGACTCGACCACTATCCTG
Sbjct	3311	
CDS:non-structural p	500	CCTATGACATCATAATATGTGATGAGTGCCACTCAACTGACTCGACCACTATCCTG
A Y D I I I C D E C H S T D S T T I L		
CDS:polyprotein [Hep Query	1329	I G T V L D Q A E T A G A R L V V L A
	4327	TCGGCACAGTCCCTGGACCAAGCGGAGACGGCTGGAGCGCGACTCGTCGTGCTCGCC
Sbjct	3371	
CDS:non-structural p	520	TCGGCACAGTCCCTGGACCAAGCGGAGACGGCTGGAGCGCGACTCGTCGTGCTCGCC
I G T V L D Q A E T A G A R L V V L A		
CDS:polyprotein [Hep Query	1349	A T P P G S V T V P H P N I E E V A L
	4387	CTACGCCTCCGGGATCGGTACCGTGCACATCCAAACATCGAGGAGGTGGCTCTG
Sbjct	3431	
CDS:non-structural p	540	CTACGCCTCCGGGATCGGTACCGTGCACATCCAAACATCGAGGAGGTGGCTCTG
A T P P G S V T V P H P N I E E V A L		
CDS:polyprotein [Hep Query	1369	S T G E I P F Y G K A I P I E T I K G
	4447	GCACTGGAGAAATCCCCTTTATGGCAAAGCCATCCCCATCGAGACCATCAAGGGG
Sbjct	3491	
CDS:non-structural p	560	GCACTGGAGAAATCCCCTTTATGGCAAAGCCATCCCCATCGAGACCATCAAGGGG
S T G E I P F Y G K A I P I E T I K G		
CDS:polyprotein [Hep Query	1389	R H L I F C H S K K C D E L A A K L
	4507	GGCACCTCATTTCTGCCATTCCAAGAAAGAAATGTGATGAGCTCGCCGCGAAGCTG
Sbjct	3551	
CDS:non-structural p	580	GGCACCTCATTTCTGCCATTCCAAGAAAGAAATGTGATGAGCTCGCCGCGAAGCTG
R H L I F C H S K K C D E L A A K L		
CDS:polyprotein [Hep Query	1409	G L G L N A V A Y Y R G L D V S V I P
	4567	GCCTCGGACTCAATGCTGTAGCATATTACCGGGGCCTGATGTATCCGTACATACCA
Sbjct	3611	
CDS:non-structural p	600	GCCTCGGACTCAATGCTGTAGCATATTACCGGGGCCTGATGTATCCGTACATACCA
G L G L N A V A Y Y R G L D V S V I P		
CDS:polyprotein [Hep Query	1429	S G D V I V V A T D A L M T G F T G D
	4627	GCGGAGACGTATTGTCGTAGCAACGGACGCTCTAATGACGGGCTTACCGCGAT
Sbjct	3671	
CDS:non-structural p	620	GCGGAGACGTATTGTCGTAGCAACGGACGCTCTAATGACGGGCTTACCGCGAT

CDS:non-structural p	620	S G D V I V V A T D A L M T G F T G D
CDS:polyprotein [Hep Query	1449	D S V I D C N T C V T Q T V D F S L D
	4687	ACTCAGTGATCGACTGCAATACATGTGTCACCCAGACAGTCGACTTCAGCTGGAC
Sbjct	3731	
CDS:non-structural p	640	D S V I D C N T C V T Q T V D F S L D
CDS:polyprotein [Hep Query	1469	T F T I E T T V P Q D A V S R S Q R
	4747	CCTTCACCATTGAGACGACGCCGACAGACGCCGACAGTCGACTTCAGCTCGCAGCGG
Sbjct	3791	
CDS:non-structural p	660	T F T I E T T V P Q D A V S R S Q R
CDS:polyprotein [Hep Query	1489	G R T G R G R M G I Y R F V T P G E R
	4807	GCAGGACTGGTAGGGGCAGGATGGCATTACAGGTTGTGACTCCAGGAGAACGG
Sbjct	3851	
CDS:non-structural p	680	G R T G R G R M G I Y R F V T P G E R
CDS:polyprotein [Hep Query	1509	S G M F D S S V L C E C Y D A G C A W
	4867	CGGGCATGTTGCGATTCCCTCGGTTCTGTGCGAGTGTCTATGACGCCGCTGTGCTTGG
Sbjct	3911	
CDS:non-structural p	700	S G M F D S S V L C E C Y D A G C A W
CDS:polyprotein [Hep Query	1529	E L T P A E T S V R L R A Y L N T P G
	4927	AGCTCACGCCCGCGAGACCTCAGTTAGGTTGCGGGCTTACCTAAACACACCAGGG
Sbjct	3971	
CDS:non-structural p	720	E L T P A E T S V R L R A Y L N T P G
CDS:polyprotein [Hep Query	1549	P V C Q D H L E F W E S V F T G L T H
	4987	CCGTCTGCCAGGACCCTGGAGTTCTGGAGAGCGTCTTACAGGCCTCACCCAC
Sbjct	4031	
CDS:non-structural p	740	CCGTCTGCCAGGACCCTGGAGTTCTGGAGAGCGTCTTACAGGCCTCACCCAC
CDS:polyprotein [Hep Query	1569	P V C Q D H L E F W E S V F T G L T H
	5047	ACGCCCATTCCTGTCCCAGACTAACAGCAGGAGAACAACTCCCTACCTGGTA
Sbjct	4091	
CDS:non-structural p	760	ACGCCCATTCCTGTCCCAGACTAACAGCAGGAGAACAACTCCCTACCTGGTA
CDS:polyprotein [Hep Query	1589	D A H F L S Q T K Q A G D N F P Y L V
	5107	
ACCGAGCTACGGTGTGCCAGGGCTCAGGCTCCACCTCCATGTGGGACCAAATG		
Sbjct	4151	ACCGAGCTACGGTGTGCCAGGGCTCAGGCTCCACCTCCATGTGGGACCAAATG
CDS:non-structural p	780	Y Q A T V C A R A Q A P P P S W D Q M
CDS:polyprotein [Hep Query	1609	K C L I R L K P T L H G P T P L L Y R
	5167	AGTGTCTCATACGGCTAAAGCCTACGCTGCACGGCCAACGCCCTGCTGTATAGG
Sbjct	4211	
CDS:non-structural p	800	AGTGTCTCATACGGCTAAAGCCTACGCTGCACGGCCAACGCCCTGCTGTATAGG
CDS:polyprotein [Hep Query	1629	K C L I R L K P T L H G P T P L L Y R
	5227	
GAGCCGTTCAAAACGAGGTTACTACCACACACCCATAACCAAATACATCATGGCA		
Sbjct	4271	GAGCCGTTCAAAACGAGGTTACTACCACACACCCATAACCAAATACATCATGGCA

CDS:non-structural p	820	G A V Q N E V T T T H P I T K Y I M A
CDS:polyprotein [Hep Query	1649	M S A D L E V V T S T W V L V G G V L
	5287	TGTCGGCTGACCTGGAGGTCGTCACGAGCACCTGGTGTGGTAGGCAGTCCTA
Sbjct	4331	
CDS:non-structural p	840	M S A D L E V V T S T W V L V G G V L
CDS:polyprotein [Hep Query	1669	A L A A Y C L T T G S V V I V G R I I
	5347	CTCTGGCCGCGTATTGCCTGACAACAGGCAGCGTGGTCATTGTGGCAGGATCATC
Sbjct	4391	
CDS:non-structural p	860	A L A A Y C L T T G S V V I V G R I I
CDS:polyprotein [Hep Query	1689	S G K P A I I P D R E V L Y R E F D E
	5407	CCGGAAAGCCGGCATCATTCCCACAGGGAGTCCTTACCGGGAGTCATGAG
Sbjct	4451	
CDS:non-structural p	880	S G K P A I I P D R E V L Y R E F D E
CDS:polyprotein [Hep Query	1709	E E C A S H L P Y I E Q G M Q L A E Q
	5467	AAGAGTGCCTCACACCTCCCTACATCGAACAGGAATGCAGCTGCCAACAA
Sbjct	4511	
CDS:non-structural p	900	E E C A S H L P Y I E Q G M Q L A E Q
CDS:polyprotein [Hep Query	1729	K Q K A I G L L Q T A T K Q A E A A A
	5527	AACAGAAGGCAATCGGGTTGCTGCAAACAGCCACCAAGCAAGCGGAGGCTGCTGCT
Sbjct	4571	
CDS:non-structural p	920	K Q K A I G L L Q T A T K Q A E A A A
CDS:polyprotein [Hep Query	1749	V V E S K W R T L E A F W A K H M W N
	5587	TGGTGGAAATCCAAGTGGCGGACCTCGAACGCCTCTGGCGAACATATGTGGAAAT
Sbjct	4631	
CDS:non-structural p	940	V V E S K W R T L E A F W A K H M W N
CDS:polyprotein [Hep Query	1769	I S G I Q Y L A G L S T L P G N P A I
	5647	TCAGCGGGATAACAATTAGCAGGCTTGTCCACTCTGCCTGGAACCCCGCGATA
Sbjct	4691	
CDS:non-structural p	960	I S G I Q Y L A G L S T L P G N P A I
CDS:polyprotein [Hep Query	1789	S L M A F T A S I T S P L T T Q H T L
	5707	CACTGATGGCATTACAGCCTCTATCACCAAGCCGCTCACCAACATACCCCTC
Sbjct	4751	
CDS:non-structural p	980	S L M A F T A S I T S P L T T Q H T L
CDS:polyprotein [Hep Query	1809	F N I L G G W V A A Q L A P P S A A S
	5767	TTAACATCCTGGGGGATGGGTGGCGCCAACTTGCTCCTCCAGCGCTGCTTCT
Sbjct	4811	
CDS:non-structural p	1000	F N I L G G W V A A Q L A P P S A A S
CDS:polyprotein [Hep Query	1829	F V G A G I A G A A V G S I G L G K V
	5827	TCGTAGGCGCCGGCATCGCTGGAGCGGCTGTTGGCAGCATAGGCCTGGAAAGGTG
Sbjct	4871	

CDS:non-structural p	1020	F V G A G I A G A A V G S I G L G K V
CDS:polyprotein [Hep Query	1849	V D I L A G Y G A G V A G A L V A F K
	5887	TGGATATTTGGCAGGTTATGGAGCAGGGGTGGCAGGCCGCTCGTGGCCTTAAG
Sbjct	4931	
CDS:non-structural p	1040	V D I L A G Y G A G V A G A L V A F K
CDS:polyprotein [Hep Query	1869	M S G E M P S T E D L V N L L P A I L
	5947	TGAGCGGCAGATGCCCTCCACCGAGGACCTGGTAACTACTCCCTGCTATCCTC
Sbjct	4991	
CDS:non-structural p	1060	M S G E M P S T E D L V N L L P A I L
CDS:polyprotein [Hep Query	1889	P G A L V V G V V C A A I L R R H V G
	6007	CTGGCGCCCTAGTCGTGGGTCTGTGCGCAGCGATACTCGTGGCACGTGGC
Sbjct	5051	
CDS:non-structural p	1080	P G A L V V G V V C A A I L R R H V G
CDS:polyprotein [Hep Query	1909	G E G A V Q W M N R L I A F A S R G N
	6067	GGGAGGGGGCTGTGCAGTGGATGAACCGGCTGATAGCGTTGCTCGCGGGTAAC
Sbjct	5111	
CDS:non-structural p	1100	G E G A V Q W M N R L I A F A S R G N
CDS:polyprotein [Hep Query	1929	V S P T H Y V P E S D A A A R V T Q I
	6127	TCTCCCCACGCACTATGTGCCTGAGAGCGACGCTGCAGCACGTCACTCAGATC
Sbjct	5171	
CDS:non-structural p	1120	V S P T H Y V P E S D A A A R V T Q I
CDS:polyprotein [Hep Query	1949	S S L T I T Q L L K R L H Q W I N E D
	6187	CTAGTCTTACCATCACTCAGCTGCTGAAGAGGCTTCACCAAGTGGATCAACGAGGAC
Sbjct	5231	
CDS:non-structural p	1140	S S L T I T Q L L K R L H Q W I N E D
CDS:polyprotein [Hep Query	1969	S T P C S G S W L R D V W D W I C T V
	6247	CCACGCCATGCTCCGGCTCGTGGCTAACAGAGATGTTGGATTGGATATGCACGGTG
Sbjct	5291	
CDS:non-structural p	1160	S T P C S G S W L R D V W D W I C T V
CDS:polyprotein [Hep Query	1989	T D F K T W L Q S K L L P R L P G V P
	6307	CTGATTCAAGACCTGGCTCCAGTCCAAGCTCCTGCCCGATTGCCGGAGTCCCC
Sbjct	5351	
CDS:non-structural p	1180	T D F K T W L Q S K L L P R L P G V P
CDS:polyprotein [Hep Query	2009	F S C Q R G Y K G V W R G D G I M Q T
	6367	TCTCATGTCAACGTGGTACAAGGGAGTCTGGCGGGCGACGGCATCATGCAAACC
Sbjct	5411	
CDS:non-structural p	1200	F S C Q R G Y K G V W R G D G I M Q T
CDS:polyprotein [Hep Query	2029	C P C G A Q I T G H V K N G S M R I V
	6427	GCCCATGTGGAGCACAGATCACCGGACATGTGAAAAACGGTTCCATGAGGATCGTG
Sbjct	5471	

CDS:non-structural p	1220	C P C G A Q I T G H V K N G S M R I V
CDS:polyprotein [Hep Query	2049	P R T C S N T W H G T F P I N A Y T T
	6487	CTAGGACCTGTAGTAACACGTGGCATGGAACATTCCCCATTAAACCGTACACCAACG
Sbjct	5531	CTAGGACCTGTAGTAACACGTGGCATGGAACATTCCCCATTAAACCGTACACCAACG
CDS:non-structural p	1240	P R T C S N T W H G T F P I N A Y T T
CDS:polyprotein [Hep Query	2069	P C T P S P A P N Y S R A L W R V A A
	6547	CCTGCACGCCCTCCCCGGCGCCAAATTATTCTAGGGCGCTGTGGGGGTGGCTGCT
Sbjct	5591	CCTGCACGCCCTCCCCGGCGCCAAATTATTCTAGGGCGCTGTGGGGGTGGCTGCT
CDS:non-structural p	1260	P C T P S P A P N Y S R A L W R V A A
CDS:polyprotein [Hep Query	2089	E Y V E V T R V G D F H Y V T G M T T
	6607	AGTACGTGGAGGTTACGCGGGTGGGGATTCCACTACGTGACGGCATGACCACT
Sbjct	5651	AGTACGTGGAGGTTACGCGGGTGGGGATTCCACTACGTGACGGCATGACCACT
CDS:non-structural p	1280	E Y V E V T R V G D F H Y V T G M T T
CDS:polyprotein [Hep Query	2109	N V K C P C Q V P A P E F F T E V D G
	6667	ACGTAAAGTGCCGTGTCAAGGTTCCGGCCCCGAATTCTTACAGAAAGTGGATGGG
Sbjct	5711	ACGTAAAGTGCCGTGTCAAGGTTCCGGCCCCGAATTCTTACAGAAAGTGGATGGG
CDS:non-structural p	1300	N V K C P C Q V P A P E F F T E V D G
CDS:polyprotein [Hep Query	2129	R L H R Y A P A C K P L L R E E V T F
	6727	GGTTGCACAGGTACGCTCCAGCGTGCAAACCCCTCCTACGGGAGGAGTCACATT
Sbjct	5771	GGTTGCACAGGTACGCTCCAGCGTGCAAACCCCTCCTACGGGAGGAGTCACATT
CDS:non-structural p	1320	R L H R Y A P A C K P L L R E E V T F
CDS:polyprotein [Hep Query	2149	V G L N Q Y L V G S Q L P C E P E P D
	6787	TCGGGCTCAATCAATACCTGGTGGGTACAGCTCCATGCGAGCCCGAACCGGAC
Sbjct	5831	TCGGGCTCAATCAATACCTGGTGGGTACAGCTCCATGCGAGCCCGAACCGGAC
CDS:non-structural p	1340	V G L N Q Y L V G S Q L P C E P E P D
CDS:polyprotein [Hep Query	2169	A V L T S M L T D P S H I T A E T A K
	6847	CAGTGCTCACTTCCATGCTCACCGACCCCTCCCACATTACGGCGGAGACGGCTAAG
Sbjct	5891	CAGTGCTCACTTCCATGCTCACCGACCCCTCCCACATTACGGCGGAGACGGCTAAG
CDS:non-structural p	1360	A V L T S M L T D P S H I T A E T A K
CDS:polyprotein [Hep Query	2189	R L A R G S P P S L A S S S A S Q L S
	6907	GGCTGGCCAGGGGATCTCCCCCTCCTGGCCAGCTCATCAGCTAGCCAGCTGTCT
Sbjct	5951	GGCTGGCCAGGGGATCTCCCCCTCCTGGCCAGCTCATCAGCTAGCCAGCTGTCT
CDS:non-structural p	1380	R L A R G S P P S L A S S S A S Q L S
CDS:polyprotein [Hep Query	2209	P S L K A T C T T R H D S P D A D L I
	6967	CTTCCTTGAAGGCAACATGCACTACCCGTATGACTCCCCGGACGCTGACCTCATC
Sbjct	6011	CTTCCTTGAAGGCAACATGCACTACCCGTATGACTCCCCGGACGCTGACCTCATC
CDS:non-structural p	1400	P S L K A T C T T R H D S P D A D L I
CDS:polyprotein [Hep Query	2229	A N L L W R Q E M G G N I T R V E S E
	7027	CCAACCTCCTGTGGCGGAGGAGATGGCGGGAACATCACCCGCGTGGAGTCAGAA
Sbjct	6071	CCAACCTCCTGTGGCGGAGGAGATGGCGGGAACATCACCCGCGTGGAGTCAGAA

CDS:non-structural p	1420	A N L L W R Q E M G G N I T R V E S E
CDS:polyprotein [Hep Query	2249	K V V I L D S F E P L Q A E E D E R E
	7087	AGGTAGTAATTTGGACTCTTCGAGCCGCTCCAAGCGGAGGAGGATGAGAGGGAA
Sbjct	6131	AGGTAGTAATTTGGACTCTTCGAGCCGCTCCAAGCGGAGGAGGATGAGAGGGAA
CDS:non-structural p	1440	K V V I L D S F E P L Q A E E D E R E
CDS:polyprotein [Hep Query	2269	S V P A E I L R R S R K F P R A M P I
	7147	CCGTTCCGGCGGAGATCCTGCGGAGGTCCAGGAAATTCCCTCGAGCGATGCCATA
Sbjct	6191	CCGTTCCGGCGGAGATCCTGCGGAGGTCCAGGAAATTCCCTCGAGCGATGCCATA
CDS:non-structural p	1460	S V P A E I L R R S R K F P R A M P I
CDS:polyprotein [Hep Query	2289	A R P D Y N P P L L E S W K D P D Y V
	7207	CACGCCCGGATTACAACCCCTCCACTGTTAGAGTCCTGGAAGGACCCGGACTACGTC
Sbjct	6251	CACGCCCGGATTACAACCCCTCCACTGTTAGAGTCCTGGAAGGACCCGGACTACGTC
CDS:non-structural p	1480	A R P D Y N P P L L E S W K D P D Y V
CDS:polyprotein [Hep Query	2309	P V V H G C P L P P A K A P P P I P P P
	7267	CAGTGGTACACGGGTGTCCATTGCCGCTGCCAAGGCCCTCCGATACCACCTCCA
Sbjct	6311	CAGTGGTACACGGGTGTCCATTGCCGCTGCCAAGGCCCTCCGATACCACCTCCA
CDS:non-structural p	1500	P V V H G C P L P P A K A P P P I P P P
CDS:polyprotein [Hep Query	2329	R K R T V V L S E S T V S S A L A E L
	7327	GGAAGAGGACGGTTGTCCCTGTCAGAATCTACCGTGTCTCTGCCTGGCGAGCTC
Sbjct	6371	GGAAGAGGACGGTTGTCCCTGTCAGAATCTACCGTGTCTCTGCCTGGCGAGCTC
CDS:non-structural p	1520	R K R T V V L S E S T V S S A L A E L
CDS:polyprotein [Hep Query	2349	T K T F G S S E S S S A V D S G T A T A
	7387	CAAAGACCTCGGCAGCTCCGAATCGCGGCCGTCGACAGCGGCACGGCAACGGCC
Sbjct	6431	CAAAGACCTCGGCAGCTCCGAATCGCGGCCGTCGACAGCGGCACGGCAACGGCC
CDS:non-structural p	1540	T K T F G S S E S S A V D S G T A T A
CDS:polyprotein [Hep Query	2369	P D Q P S D D G D A G S D V E S Y S S
	7447	CTGACCAGCCCTCCGACGACGGCGACGCCGGATCCGACGTTGAGTCGTACTCCTCC
Sbjct	6491	CTGACCAGCCCTCCGACGACGGCGACGCCGGATCCGACGTTGAGTCGTACTCCTCC
CDS:non-structural p	1560	P D Q P S D D G D A G S D V E S Y S S
CDS:polyprotein [Hep Query	2389	P P L E G E P G D P D L S D G S W S T
	7507	CCCCCTTGAGGGGGAGCCGGGGATCCGATCTCAGCGACGGGTCTGGTCTACC
Sbjct	6551	CCCCCTTGAGGGGGAGCCGGGGATCCGATCTCAGCGACGGGTCTGGTCTACC
CDS:non-structural p	1580	P P L E G E P G D P D L S D G S W S T
CDS:polyprotein [Hep Query	2409	S E E A S E D V V C C S M S Y T W T G
	7567	GCGAGGAGGCTAGTGAGGACGTCGCTGCTGCTCGATGTCCTACACATGGACAGGC
Sbjct	6611	GCGAGGAGGCTAGTGAGGACGTCGCTGCTGCTCGATGTCCTACACATGGACAGGC
CDS:non-structural p	1600	S E E A S E D V V C C S M S Y T W T G
CDS:polyprotein [Hep Query	2429	L I T P C A A E E T K L P I N A L S N
	7627	TGATCACGCCATGCGCTGCGAGGAAACCAAGCTGCCATCAATGCACTGAGCAAC
Sbjct	6671	TGATCACGCCATGCGCTGCGAGGAAACCAAGCTGCCATCAATGCACTGAGCAAC

CDS:non-structural p	1620	L I T P C A A E E T K L P I N A L S N
CDS:polyprotein [Hep Query	2449	L L R H H N L V Y A T T S R S A S L R
	7687	TGCTCCGTCACCACAACTTGGTCTATGCTACAAACATCTCGCAGCGCAAGCTGCGG
Sbjct	6731	TGCTCCGTCACCACAACTTGGTCTATGCTACAAACATCTCGCAGCGCAAGCTGCGG
CDS:non-structural p	1640	L L R H H N L V Y A T T S R S A S L R
CDS:polyprotein [Hep Query	2469	K K V T F D R L Q V L D D H Y R D V L
	7747	AGAAGGTACACCTTGACAGACTGCAGGTCTGGACGACCACTACCGGGACGTGCTC
Sbjct	6791	AGAAGGTACACCTTGACAGACTGCAGGTCTGGACGACCACTACCGGGACGTGCTC
CDS:non-structural p	1660	K K V T F D R L Q V L D D H Y R D V L
CDS:polyprotein [Hep Query	2489	E M K A K A S T V K A K L L S V E E A
	7807	AGATGAAGGCCAAGGCCTCCACAGTTAAGGCTAAACCTCTATCCGGAGGAAGCC
Sbjct	6851	AGATGAAGGCCAAGGCCTCCACAGTTAAGGCTAAACCTCTATCCGGAGGAAGCC
CDS:non-structural p	1680	E M K A K A S T V K A K L L S V E E A
CDS:polyprotein [Hep Query	2509	K L T P P H S A R S K F G Y G A K D V
	7867	AGCTGACGCCACATTGGCCAGATCTAAATTGGCTATGGGAAAGGACGTC
Sbjct	6911	AGCTGACGCCACATTGGCCAGATCTAAATTGGCTATGGGAAAGGACGTC
CDS:non-structural p	1700	K L T P P H S A R S K F G Y G A K D V
CDS:polyprotein [Hep Query	2529	N L S S K A V N H I R S V W K D L L E
	7927	ACCTATCCAGCAAGGCCGTTAACACATCCGCTCCGTGGAAAGGACTTGCTGGAA
Sbjct	6971	ACCTATCCAGCAAGGCCGTTAACACATCCGCTCCGTGGAAAGGACTTGCTGGAA
CDS:non-structural p	1720	N L S S K A V N H I R S V W K D L L E
CDS:polyprotein [Hep Query	2549	T E T P I D T T I M A K N E V F C V Q
	7987	CTGAGACACCAATTGACACCACATGGCAAAAAATGAGGTTCTCGCTCCAA
Sbjct	7031	CTGAGACACCAATTGACACCACATGGCAAAAAATGAGGTTCTCGCTCCAA
CDS:non-structural p	1740	T E T P I D T T I M A K N E V F C V Q
CDS:polyprotein [Hep Query	2569	E K G G R K P A R L I V F P D L G V R
	8047	AGAAGGGGGCCGCAAGCCAGCTGCCATTACGTATTCCAGATTGGGGTCGT
Sbjct	7091	AGAAGGGGGCCGCAAGCCAGCTGCCATTACGTATTCCAGATTGGGGTCGT
CDS:non-structural p	1760	E K G G R K P A R L I V F P D L G V R
CDS:polyprotein [Hep Query	2589	C E K M A L Y D V V S T L P Q A V M G
	8107	GCGAGAAAATGGCCCTTACGATGTGGCTCCACCCCTCCGTGATGGC
Sbjct	7151	GCGAGAAAATGGCCCTTACGATGTGGCTCCACCCCTCCGTGATGGC
CDS:non-structural p	1780	C E K M A L Y D V V S T L P Q A V M G
CDS:polyprotein [Hep Query	2609	S Y G F Q Y S P G Q R V E F L V N A W
	8167	CATACGGATTCCAATCTCCTGGACAGCGGGTCGAGTCCTGGTAATGCCTGG
Sbjct	7211	CATACGGATTCCAATCTCCTGGACAGCGGGTCGAGTCCTGGTAATGCCTGG
CDS:non-structural p	1800	S Y G F Q Y S P G Q R V E F L V N A W
CDS:polyprotein [Hep Query	2629	A K K C P M G F A Y D T R C F D S T V
	8227	CGAAGAAAATGCCCTATGGGCTTCGCATATGACACCCGCTGTTTGA
Sbjct	7271	CGAAGAAAATGCCCTATGGGCTTCGCATATGACACCCGCTGTTTGA

CDS:non-structural p	1820	A K K C P M G F A Y D T R C F D S T V
CDS:polyprotein [Hep Query	2649	E N D I R V E E S I Y Q C C D L A P E
	8287	AGAATGACATCCGTGTTGAGGAGTCATCTACCAATGTTGTGACTTGGCCCCGAA
Sbjct	7331	AGAATGACATCCGTGTTGAGGAGTCATCTACCAATGTTGTGACTTGGCCCCGAA
CDS:non-structural p	1840	E N D I R V E E S I Y Q C C D L A P E
CDS:polyprotein [Hep Query	2669	R Q A I R S L T E R L Y I G G P L T N
	8347	GACAGGCCATAAGGTGCGTCACAGAGCGGCTTACATGGGGGCCCCCTGACTAAT
Sbjct	7391	GACAGGCCATAAGGTGCGTCACAGAGCGGCTTACATGGGGGCCCCCTGACTAAT
CDS:non-structural p	1860	R Q A I R S L T E R L Y I G G P L T N
CDS:polyprotein [Hep Query	2689	K G Q N C G Y R R C R A S G V L T T S
	8407	AAGGGCAGAACTGCGGCTATGCCGGTGCCGCGAGCGGTGTACTGACGACCAGC
Sbjct	7451	AAGGGCAGAACTGCGGCTATGCCGGTGCCGCGAGCGGTGTACTGACGACCAGC
CDS:non-structural p	1880	K G Q N C G Y R R C R A S G V L T T S
CDS:polyprotein [Hep Query	2709	G N T L T C Y L K A A A A C R A A K L
	8467	GTAATACCTCACATGTTACTTGAAGGCCGCTGCCGCTGTCGAGCTGCGAAGCTC
Sbjct	7511	GTAATACCTCACATGTTACTTGAAGGCCGCTGCCGCTGTCGAGCTGCGAAGCTC
CDS:non-structural p	1900	G N T L T C Y L K A A A A C R A A K L
CDS:polyprotein [Hep Query	2729	D C T M L V C G D D L V V I C E S A G
	8527	ACTGCACGATGCTCGTATGCCGGAGACGACCTTGTGTTATCTGTGAAAGCGGGGG
Sbjct	7571	ACTGCACGATGCTCGTATGCCGGAGACGACCTTGTGTTATCTGTGAAAGCGGGGG
CDS:non-structural p	1920	D C T M L V C G D D L V V I C E S A G
CDS:polyprotein [Hep Query	2749	Q E D E A S L R A F T E A M T R Y S A
	8587	AAGAGGACGAGGCAGCCTACGGCCTTCACGGAGGCTATGACTAGATACTCTGCC
Sbjct	7631	AAGAGGACGAGGCAGCCTACGGCCTTCACGGAGGCTATGACTAGATACTCTGCC
CDS:non-structural p	1940	Q E D E A S L R A F T E A M T R Y S A
CDS:polyprotein [Hep Query	2769	P G D P P K P E Y D L E L I T S C S S
	8647	CTGGGGACCCGCCAAACCAGAATACGACTTGGAGTTGATAACATCATGCTCCCTCC
Sbjct	7691	CTGGGGACCCGCCAAACCAGAATACGACTTGGAGTTGATAACATCATGCTCCCTCC
CDS:non-structural p	1960	P G D P P K P E Y D L E L I T S C S S
CDS:polyprotein [Hep Query	2789	V S V A H D A S G K R V Y Y L T R D P
	8707	TGTCAGTCGCGCACGATGCATCTGGCAAAAGGGTGTACTATCTCACCCGTGACCCC
Sbjct	7751	TGTCAGTCGCGCACGATGCATCTGGCAAAAGGGTGTACTATCTCACCCGTGACCCC
CDS:non-structural p	1980	V S V A H D A S G K R V Y Y L T R D P
CDS:polyprotein [Hep Query	2809	T P L A R A A W E T A R H T P V N S W
	8767	CCCCCCTTGCAGCGGGCTGCCTGGAGACAGCTAGACACACTCCAGTCAATTCTGG
Sbjct	7811	CCCCCCTTGCAGCGGGCTGCCTGGAGACAGCTAGACACACTCCAGTCAATTCTGG
CDS:non-structural p	2000	T P L A R A A W E T A R H T P V N S W
CDS:polyprotein [Hep Query	2829	G N I I M Y A P T L W A R M I L M T H
	8827	GCAACATCATCATGTATGCCGCCACCTTGTGGCAAGGATGATCCTGATGACTCAT
Sbjct	7871	GCAACATCATCATGTATGCCGCCACCTTGTGGCAAGGATGATCCTGATGACTCAT

CDS:non-structural p	2020	G N I I M Y A P T L W A R M I L M T H
CDS:polyprotein [Hep Query	2849	F S I L L A Q E Q L E K A L D C Q I Y
	8887	TCTCCATCCTCTAGCTAGGAACAACTTGAAAAAGCCCTAGATTGTCAGATCTAC
Sbjct	7931	
CDS:non-structural p	2040	F S I L L A Q E Q L E K A L D C Q I Y
CDS:polyprotein [Hep Query	2869	A C Y S I E P L D L P Q I I Q R L H G
	8947	CCTGTTACTCCATTGAGCCACTTGACCTACCTCAGATCATTCAACGACTCCATGGC
Sbjct	7991	
CDS:non-structural p	2060	A C Y S I E P L D L P Q I I Q R L H G
CDS:polyprotein [Hep Query	2889	S A F S L H S Y S P G E I N R V A S C
	9007	GCGCATTTCACTCCATAGTTACTCTCAGGTGAGATCAATAGGGTGGCTTCATGC
Sbjct	8051	
CDS:non-structural p	2080	S A F S L H S Y S P G E I N R V A S C
CDS:polyprotein [Hep Query	2909	R K L G V P P L R V W R H R A R S V R
	9067	GGAAACTTGGGTACCGCCCTTGCGAGTCTGGAGACATCGGCCAGAAGTGTCCGC
Sbjct	8111	
CDS:non-structural p	2100	R K L G V P P L R V W R H R A R S V R
CDS:polyprotein [Hep Query	2929	R L L S Q G G R A A T C G K Y L F N W
	9127	GGCTACTGTCCCAGGGGGGGAGGGCTGCCACTTGTGGCAAGTACCTCTTCAACTGG
Sbjct	8171	
CDS:non-structural p	2120	R L L S Q G G R A A T C G K Y L F N W
CDS:polyprotein [Hep Query	2949	V R T K L K L T P I P A A S Q L D L S
	9187	TAAGGACCAAGCTCAAACACTCCAATCCGGTGCCTCCAGTTGGATTATCC
Sbjct	8231	
CDS:non-structural p	2140	V R T K L K L T P I P A A S Q L D L S
CDS:polyprotein [Hep Query	2969	W F V A G Y S G G D I Y H S L S R A R
	9247	GGTCGTTGCTGGTTACAGCGGGGAGACATATATCACAGCCTGTCGTGCCGA
Sbjct	8291	
CDS:non-structural p	2160	W F V A G Y S G G D I Y H S L S R A R
CDS:polyprotein [Hep Query	2989	R W F M W C L L L S V G V G I Y L L
	9307	GCTGGTTCATGTGGTGCCTACTCCTACTTCTGTAGGGGTAGGCATCTATCTACTC
Sbjct	8351	
CDS:non-structural p	2180	R W F M W C L L L S V G V G I Y L L
CDS:polyprotein [Hep Query	3009	N R
	9367	ACCGATGAACGGGGAGCTAACACTCCAGGCCAATAGGCCATCCTG 9412
Sbjct	8411	
CDS:non-structural p	2200	ACCGATGAACGGGGAGCTAACACTCCAGGCCAATAGGCCATCCTG 8456



Score = 719 bits (374), Expect = 0.0
Identities = 388/388 (100%), Gaps = 0/388 (0%)
Strand=Plus/Plus

Query	2	CCAGCCCCGATTGGGGCGACACTCCACCATAGATCACTCCCTGTGAGGAAC	TAC
Sbjct	2	CCAGCCCCGATTGGGGCGACACTCCACCATAGATCACTCCCTGTGAGGAAC	TAC
Query	62	CTTCACGCAGAAAGCGTCTAGCCATGGCGTTAGTATGAGTGTGAGCCTCCAGG	
Sbjct	62	CTTCACGCAGAAAGCGTCTAGCCATGGCGTTAGTATGAGTGTGAGCCTCCAGG	
Query	122	CCCCCTCCCGGGAGAGCCATAGTGGCTGCGGAACCGGTGAGTACACCGGAATTGCC	
Sbjct	122	CCCCCTCCCGGGAGAGCCATAGTGGCTGCGGAACCGGTGAGTACACCGGAATTGCC	
Query	182	ACGACCGGGTCCCTTCTGGATCAACCCGCTCAATGCCTGGAGATTGGCGTGC	CC
Sbjct	182	ACGACCGGGTCCCTTCTGGATCAACCCGCTCAATGCCTGGAGATTGGCGTGC	CC
Query	242	CGAGACTGCTAGCCGAGTAGTGTGGTGGCTGCGAAAGGCCTTGTGGTACTGC	CTGATA
Sbjct	242	CGAGACTGCTAGCCGAGTAGTGTGGTGGCTGCGAAAGGCCTTGTGGTACTGC	CTGATA
CDS:polyprotein [Hep	1		M S T N P K
Query	302	TGCTTGCAGTGCCCCGGGAGGTCTCGTAGACCGTGCACCATGAGCACGA	ATCCTAA
Sbjct	302	TGCTTGCAGTGCCCCGGGAGGTCTCGTAGACCGTGCACCATGAGCACGA	ATCCTAA
CDS:core-neo fusion	1		M S T N P K
CDS:polyprotein [Hep	8	Q R K T K R N T N	
Query	362	TCAAAAGAAAAACCAAACGTAACACCAAC	389
Sbjct	362	TCAAAAGAAAAACCAAACGTAACACCAAC	389
CDS:core-neo fusion	8	Q R K T K R N T N	

Score = 189 bits (98), Expect = 2e-43
Identities = 98/98 (100%), Gaps = 0/98 (0%)
Strand=Plus/Plus

Query	9508	GGTGGCTCCATCTAGCCCTAGTCACGGCTAGCTGTGAAAGGTCCGTGAGCCGCTTGACT	9567
Sbjct	8552	GGTGGCTCCATCTAGCCCTAGTCACGGCTAGCTGTGAAAGGTCCGTGAGCCGCTTGACT	8611
Query	9568	GCAGAGAGTGCTGATACTGGCCTCTGCAGATCAAGT	9605
Sbjct	8612	GCAGAGAGTGCTGATACTGGCCTCTGCAGATCAAGT	8649

CPU time: 0.16 user secs. 0.04 sys. secs 0.20 total secs.

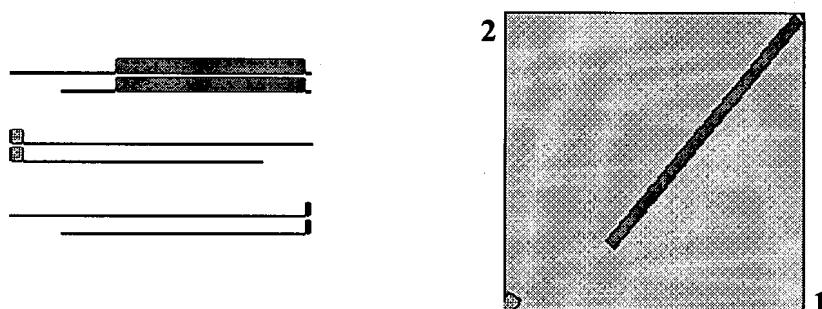
BLAST 2 SEQUENCES RESULTS VERSION BLASTN 2.2.17 [Aug-26-2007]

Match: 1 Mismatch: -2 gap open: 5 gap extension: 2

x_dropoff: 0 expect: 10.0000 wordsize: 11 Filter View option StandardMasking character option X for protein, n for nucleotide Masking color option Black Show CDS translation Align

Sequence 1: gi|5420376|Hepatitis C virus type 1b complete genome, isolate Con1
 Length = 9604 (1 .. 9605)

Sequence 2: gi|5441834|Hepatitis C virus replicon I377/NS3-3'UTR
 Length = 7988 (1 .. 7989)



NOTE: Bitscore and expect value are calculated based on the size of the nr database.

NOTE: If protein translation is reversed, please repeat the search with reverse strand of the query sequence.



Score = 1.142e+04 bits (5937), Expect = 0.0
 Identities = 5993/5993 (100%), Gaps = 0/5993 (0%)
 Strand=Plus/Plus

CDS:polyprotein [Hep	1027	A P I T A Y S Q Q T R G L L G C I I T
Query	3420	GCGCCTATTACGGCCTACTCCAACAGACGCGAGGCCTACTTGGCTGCATCATCAC
Sbjct	1804	GCGCCTATTACGGCCTACTCCAACAGACGCGAGGCCTACTTGGCTGCATCATCAC
CDS:non-structural p	2	A P I T A Y S Q Q T R G L L G C I I T
CDS:polyprotein [Hep	1047	L T G R D R N Q V E G E V Q V V S T A
Query	3480	CTCACAGGCCGGGACAGGAACCAGGTCGAGGGGGAGGTCCAAGTGGTCTCCACCGC
Sbjct	1864	CTCACAGGCCGGGACAGGAACCAGGTCGAGGGGGAGGTCCAAGTGGTCTCCACCGC

CDS:non-structural p	22	L T G R D R N Q V E G E V Q V V S T A
CDS:polyprotein [Hep Query	1067	Q S F L A T C V N G V C W T V Y H G A
	3540	CAATCTTCCTGGCGACCTGCGTCAATGGCGTGTGTTGGACTGTCTATCATGGTGC
Sbjct	1924	CAATCTTCCTGGCGACCTGCGTCAATGGCGTGTGTTGGACTGTCTATCATGGTGC
CDS:non-structural p	42	Q S F L A T C V N G V C W T V Y H G A
CDS:polyprotein [Hep Query	1087	S K T L A G P K G P I T Q M Y T N V D
	3600	TCAAAGACCCTTGCCGGCCAAAGGGCCAATCACCAAATGTACACCAATGTGGA
Sbjct	1984	TCAAAGACCCTTGCCGGCCAAAGGGCCAATCACCAAATGTACACCAATGTGGA
CDS:non-structural p	62	S K T L A G P K G P I T Q M Y T N V D
CDS:polyprotein [Hep Query	1107	D L V G W Q A P P G A R S L T P C T C
	3660	GACCTCGTCGGCTGGCAAGCGCCCCCCCAGGGCGCGTCTTGACACCATGCACCTG
Sbjct	2044	GACCTCGTCGGCTGGCAAGCGCCCCCCCAGGGCGCGTCTTGACACCATGCACCTG
CDS:non-structural p	82	D L V G W Q A P P G A R S L T P C T C
CDS:polyprotein [Hep Query	1127	S S D L Y L V T R H A D V I P V R R R
	3720	AGCTCGGACCTTACTTGGTCACGAGGCATGCCATGTCTTCCGGTGCGCCGGCG
Sbjct	2104	AGCTCGGACCTTACTTGGTCACGAGGCATGCCATGTCTTCCGGTGCGCCGGCG
CDS:non-structural p	102	S S D L Y L V T R H A D V I P V R R R
CDS:polyprotein [Hep Query	1147	D S R G S L L S P R P V S Y L K G S S
	3780	GACAGCAGGGGGAGCCTACTCTCCCCCAGGCCGTCTCTACTTGAAGGGCTCTCG
Sbjct	2164	GACAGCAGGGGGAGCCTACTCTCCCCCAGGCCGTCTCTACTTGAAGGGCTCTTC
CDS:non-structural p	122	D S R G S L L S P R P V S Y L K G S S
CDS:polyprotein [Hep Query	1167	G P L L C P S G H A V G I F R A A V C
	3840	GGTCCACTGCTCTGCCCTCGGGCACGCTGTGGGCATCTTCGGGCTGCCGTGTG
Sbjct	2224	GGTCCACTGCTCTGCCCTCGGGCACGCTGTGGGCATCTTCGGGCTGCCGTGTG
CDS:non-structural p	142	G P L L C P S G H A V G I F R A A V C
CDS:polyprotein [Hep Query	1187	R G V A K A V D F V P V E S M E T T M
	3900	CGAGGGGTTGCGAAGGCGGTGGACTTGTACCCGTCGAGTCTATGAAACCACTAT
Sbjct	2284	CGAGGGGTTGCGAAGGCGGTGGACTTGTACCCGTCGAGTCTATGAAACCACTAT
CDS:non-structural p	162	R G V A K A V D F V P V E S M E T T M
CDS:polyprotein [Hep Query	1207	S P V F T D N S S P P A V P Q T F Q V
	3960	TCCCCGGTCTTCACGGACAACCTCGTCCCCCTCCGGCGTACCGCAGACATTCCAGGT
Sbjct	2344	TCCCCGGTCTTCACGGACAACCTCGTCCCCCTCCGGCGTACCGCAGACATTCCAGGT
CDS:non-structural p	182	S P V F T D N S S P P A V P Q T F Q V
CDS:polyprotein [Hep Query	1227	H L H A P T G S G K S T K V P A A Y A
	4020	CATCTACACGCCCTACTGGTAGCGGCAAGAGCACTAAGGTGCCGGCTCGTATGC
Sbjct	2404	CATCTACACGCCCTACTGGTAGCGGCAAGAGCACTAAGGTGCCGGCTCGTATGC
CDS:non-structural p	202	H L H A P T G S G K S T K V P A A Y A
CDS:polyprotein [Hep Query	1247	Q G Y K V L V L N P S V A A T L G F G
	4080	CAAGGGTATAAGGTGCTTGTCCCTGAACCGTCCGTGCCGCCACCTAGGTTCGG
Sbjct	2464	CAAGGGTATAAGGTGCTTGTCCCTGAACCGTCCGTGCCGCCACCTAGGTTCGG

CDS:non-structural p	222	Q G Y K V L V L N P S V A A T L G F G
CDS:polyprotein [Hep Query	1267	Y M S K A H G I D P N I R T G V R T I
	4140	TATATGTCTAACGGCACATGGTATCGACCTAACATCAGAACCGGGGTAAGGACCAT
Sbjct	2524	
CDS:non-structural p	242	TATATGTCTAACGGCACATGGTATCGACCTAACATCAGAACCGGGGTAAGGACCAT
		Y M S K A H G I D P N I R T G V R T I
CDS:polyprotein [Hep Query	1287	T G A P I T Y S T Y G K F L A D G G C
	4200	ACGGGTGCCCATCACGTACTCCACCTATGGCAAGTTCTGCCGACGGTGGTTG
Sbjct	2584	
CDS:non-structural p	262	ACGGGTGCCCATCACGTACTCCACCTATGGCAAGTTCTGCCGACGGTGGTTG
		T G A P I T Y S T Y G K F L A D G G C
CDS:polyprotein [Hep Query	1307	G G A Y D I I I C D E C H S T D S T T
	4260	GGGGCGCCTATGACATCATAATATGTGATGAGTGCCACTCAACTGACTCGACCAC
Sbjct	2644	
CDS:non-structural p	282	GGGGCGCCTATGACATCATAATATGTGATGAGTGCCACTCAACTGACTCGACCAC
		G G A Y D I I I C D E C H S T D S T T
CDS:polyprotein [Hep Query	1327	L G I G T V L D Q A E T A G A R L V V
	4320	CTGGGCATCGGCACAGTCCTGGACCAAGCGGAGACGGCTGGAGCGCGACTCGTCGT
Sbjct	2704	
CDS:non-structural p	302	CTGGGCATCGGCACAGTCCTGGACCAAGCGGAGACGGCTGGAGCGCGACTCGTCGT
		L G I G T V L D Q A E T A G A R L V V
CDS:polyprotein [Hep Query	1347	A T A T P P G S V T V P H P N I E E V
	4380	GCCACCGCTACGCCTCCGGGATCGGTACCGTGCCACATCCAAACATCGAGGAGGT
Sbjct	2764	
CDS:non-structural p	322	GCCACCGCTACGCCTCCGGGATCGGTACCGTGCCACATCCAAACATCGAGGAGGT
		A T A T P P G S V T V P H P N I E E V
CDS:polyprotein [Hep Query	1367	L S S T G E I P F Y G K A I P I E T I
	4440	CTGTCCAGCACTGGAGAAATCCCCTTTATGGCAAAGCCATCCCCATCGAGACCAT
Sbjct	2824	
CDS:non-structural p	342	CTGTCCAGCACTGGAGAAATCCCCTTTATGGCAAAGCCATCCCCATCGAGACCAT
		L S S T G E I P F Y G K A I P I E T I
CDS:polyprotein [Hep Query	1387	G G R H L I F C H S K K K C D E L A A
	4500	GGGGGGAGGCACCTCATTCTGCCATTCCAAGAAGAAATGTGATGAGCTGCCGC
Sbjct	2884	
CDS:non-structural p	362	GGGGGGAGGCACCTCATTCTGCCATTCCAAGAAGAAATGTGATGAGCTGCCGC
		G G R H L I F C H S K K K C D E L A A
CDS:polyprotein [Hep Query	1407	L S G L G L N A V A Y Y R G L D V S V
	4560	CTGTCCGGCCTCGGACTCAATGCTGTAGCATATTACCGGGGCTTGATGTATCCGT
Sbjct	2944	
CDS:non-structural p	382	CTGTCCGGCCTCGGACTCAATGCTGTAGCATATTACCGGGGCTTGATGTATCCGT
		L S G L G L N A V A Y Y R G L D V S V
CDS:polyprotein [Hep Query	1427	P T S G D V I V V A T D A L M T G F T
	4620	CCAACTAGCGGAGACGTATTGTCGTAGCAACGGACGCTCTAATGACGGGCTTAC
Sbjct	3004	
CDS:non-structural p	402	CCAACTAGCGGAGACGTATTGTCGTAGCAACGGACGCTCTAATGACGGGCTTAC
		P T S G D V I V V A T D A L M T G F T
CDS:polyprotein [Hep Query	1447	D F D S V I D C N T C V T Q T V D F S
	4680	GATTCGACTCAGTGTGACTGCAATACATGTGTCACCCAGACAGTCGACTTCAG
Sbjct	3064	
		GATTCGACTCAGTGTGACTGCAATACATGTGTCACCCAGACAGTCGACTTCAG

CDS:non-structural p	422	D F D S V I D C N T C V T Q T V D F S
CDS:polyprotein [Hep Query	1467	D P T F T I E T T T V P Q D A V S R S
	4740	GACCCGACCTTCACCATTGAGACGACGACCCTGCCACAAGACGCGGTGTCACGCTC
Sbjct	3124	GACCCGACCTTCACCATTGAGACGACGACCCTGCCACAAGACGCGGTGTCACGCTC
CDS:non-structural p	442	D P T F T I E T T T V P Q D A V S R S
CDS:polyprotein [Hep Query	1487	R R G R T G R G R M G I Y R F V T P G
	4800	CGCGGAGGCAGGACTGGTAGGGGCAGGATGGCATTACAGGTTGTGACTCCAGG
Sbjct	3184	CGCGGAGGCAGGACTGGTAGGGGCAGGATGGCATTACAGGTTGTGACTCCAGG
CDS:non-structural p	462	R R G R T G R G R M G I Y R F V T P G
CDS:polyprotein [Hep Query	1507	R P S G M F D S S V L C E C Y D A G C
	4860	CGGCCCTCGGGCATGTTGATTCCCTCGGTTCTGTGCGAGTGCATGACGCGGGCTG
Sbjct	3244	CGGCCCTCGGGCATGTTGATTCCCTCGGTTCTGTGCGAGTGCATGACGCGGGCTG
CDS:non-structural p	482	R P S G M F D S S V L C E C Y D A G C
CDS:polyprotein [Hep Query	1527	W Y E L T P A E T S V R L R A Y L N T
	4920	TGGTACGAGCTCACGCCGCCGAGACCTCAGTTAGGTTGCGGGCTTACCTAAACAC
Sbjct	3304	TGGTACGAGCTCACGCCGCCGAGACCTCAGTTAGGTTGCGGGCTTACCTAAACAC
CDS:non-structural p	502	W Y E L T P A E T S V R L R A Y L N T
CDS:polyprotein [Hep Query	1547	G L P V C Q D H L E F W E S V F T G L
	4980	GGGTTGCCCGTCTGCCAGGACCATCTGGAGTTCTGGGAGAGCGTCTTACAGGCCT
Sbjct	3364	GGGTTGCCCGTCTGCCAGGACCATCTGGAGTTCTGGGAGAGCGTCTTACAGGCCT
CDS:non-structural p	522	G L P V C Q D H L E F W E S V F T G L
CDS:polyprotein [Hep Query	1567	H I D A H F L S Q T K Q A G D N F P Y
	5040	CACATAGACGCCATTCTTGTCCCAGACTAACGAGGAGAACAACTCCCTA
Sbjct	3424	CACATAGACGCCATTCTTGTCCCAGACTAACGAGGAGAACAACTCCCTA
CDS:non-structural p	542	H I D A H F L S Q T K Q A G D N F P Y
CDS:polyprotein [Hep Query	1587	V A Y Q A T V C A R A Q A P P P S W D
	5100	GTCAGCATACCAGGCTACGGTGTGCCAGGGCTCAGGCTCCACCTCCATCGGGGA
Sbjct	3484	GTCAGCATACCAGGCTACGGTGTGCCAGGGCTCAGGCTCCACCTCCATCGGGGA
CDS:non-structural p	562	V A Y Q A T V C A R A Q A P P P S W D
CDS:polyprotein [Hep Query	1607	M W K C L I R L K P T L H G P T P L L
	5160	ATGTGGAAGTGTCTCATACGGCTAAAGCCTACGCTGCACGGGCCAACGCCCCTGCT
Sbjct	3544	ATGTGGAAGTGTCTCATACGGCTAAAGCCTACGCTGCACGGGCCAACGCCCCTGCT
CDS:non-structural p	582	M W K C L I R L K P T L H G P T P L L
CDS:polyprotein [Hep Query	1627	R L G A V Q N E V T T T H P I T K Y I
	5220	AGGCTGGGAGCCGTTCAAAACGAGGTTACTACCACACACCCATAACCAAATACAT
Sbjct	3604	AGGCTGGGAGCCGTTCAAAACGAGGTTACTACCACACACCCATAACCAAATACAT
CDS:non-structural p	602	R L G A V Q N E V T T T H P I T K Y I
CDS:polyprotein [Hep Query	1647	A C M S A D L E V V T S T W V L V G G
	5280	GCATGCATGTCGGCTGACCTGGAGGTCGTACGAGCACCTGGGTGCTGGTAGGC
Sbjct	3664	GCATGCATGTCGGCTGACCTGGAGGTCGTACGAGCACCTGGGTGCTGGTAGGC

CDS:non-structural p	622	A C M S A D L E V V T S T W V L V G G
CDS:polyprotein [Hep Query	1667	L A A L A A Y C L T T G S V V I V G R
	5340	CTAGCAGCTCTGGCCGCGTATTGCCTGACAACAGGCAGCGTGGTCATTGTGGCAG
Sbjct	3724	CTAGCAGCTCTGGCCGCGTATTGCCTGACAACAGGCAGCGTGGTCATTGTGGCAG
CDS:non-structural p	642	L A A L A A Y C L T T G S V V I V G R
CDS:polyprotein [Hep Query	1687	I L S G K P A I I P D R E V L Y R E F
	5400	ATCTTGTCCGGAAAGCCGCCATCATTCCGACAGGAAAGTCCTTACCGGGAGTT
Sbjct	3784	ATCTTGTCCGGAAAGCCGCCATCATTCCGACAGGAAAGTCCTTACCGGGAGTT
CDS:non-structural p	662	I L S G K P A I I P D R E V L Y R E F
CDS:polyprotein [Hep Query	1707	E M E E C A S H L P Y I E Q G M Q L A
	5460	GAGATGGAAGAGTGCACCCCTCACACCTCCCTACATCGAACAGGAAATGCAGCTCGC
Sbjct	3844	GAGATGGAAGAGTGCACCCCTCACACCTCCCTACATCGAACAGGAAATGCAGCTCGC
CDS:non-structural p	682	E M E E C A S H L P Y I E Q G M Q L A
CDS:polyprotein [Hep Query	1727	Q F K Q K A I G L L Q T A T K Q A E A
	5520	CAATTCAAACAGAAGGCAATCGGGTTGCTGCAAACAGCCACCAAGCAAGCGGAGGC
Sbjct	3904	CAATTCAAACAGAAGGCAATCGGGTTGCTGCAAACAGCCACCAAGCAAGCGGAGGC
CDS:non-structural p	702	Q F K Q K A I G L L Q T A T K Q A E A
CDS:polyprotein [Hep Query	1747	A P V V E S K W R T L E A F W A K H M
	5580	GCTCCCGTGGTGAATCCAAGTGGCGGACCCCTCGAACGCCTCTGGCGAACATAT
Sbjct	3964	GCTCCCGTGGTGAATCCAAGTGGCGGACCCCTCGAACGCCTCTGGCGAACATAT
CDS:non-structural p	722	A P V V E S K W R T L E A F W A K H M
CDS:polyprotein [Hep Query	1767	N F I S G I Q Y L A G L S T L P G N P
	5640	AATTTCATCAGCGGGATACAATATTAGCAGGCTTGTCCACTCTGCCTGGCAACCC
Sbjct	4024	AATTTCATCAGCGGGATACAATATTAGCAGGCTTGTCCACTCTGCCTGGCAACCC
CDS:non-structural p	742	N F I S G I Q Y L A G L S T L P G N P
CDS:polyprotein [Hep Query	1787	I A S L M A F T A S I T S P L T T Q H
	5700	ATAGCATCACTGATGGCATTACAGCCTCTATCACCAAGCCGCTCACCAACCAACA
Sbjct	4084	ATAGCATCACTGATGGCATTACAGCCTCTATCACCAAGCCGCTCACCAACCAACA
CDS:non-structural p	762	I A S L M A F T A S I T S P L T T Q H
CDS:polyprotein [Hep Query	1807	L L F N I L G G W V A A Q L A P P S A
	5760	CTCCTGTTAACATCCTGGGGGATGGGTGGCGCCAACTTGCTCCTCCCAGCGC
Sbjct	4144	CTCCTGTTAACATCCTGGGGGATGGGTGGCGCCAACTTGCTCCTCCCAGCGC
CDS:non-structural p	782	L L F N I L G G W V A A Q L A P P S A
CDS:polyprotein [Hep Query	1827	S A F V G A G I A G A A V G S I G L G
	5820	TCTGCTTCGTAGGCAGCCGGCATCGCTGGAGCGGCTGTTGGCAGCATAGGCCTTGG
Sbjct	4204	TCTGCTTCGTAGGCAGCCGGCATCGCTGGAGCGGCTGTTGGCAGCATAGGCCTTGG
CDS:non-structural p	802	S A F V G A G I A G A A V G S I G L G
CDS:polyprotein [Hep Query	1847	V L V D I L A G Y G A G V A G A L V A
	5880	GTGCTTGTGGATATTGGCAGGTTATGGAGCAGGGGTGGCAGGCGCCTCGTGGC
Sbjct	4264	GTGCTTGTGGATATTGGCAGGTTATGGAGCAGGGGTGGCAGGCGCCTCGTGGC

CDS:non-structural p	822	V L V D I L A G Y G A G V A G A L V A
CDS:polyprotein [Hep Query	1867	K V M S G E M P S T E D L V N L L P A
	5940	AAGGTCATGAGCGGCAGATGCCCTCACCGAGGACCTGGTTAACCTACTCCCTGC
Sbjct	4324	AAGGTCATGAGCGGCAGATGCCCTCACCGAGGACCTGGTTAACCTACTCCCTGC
CDS:non-structural p	842	K V M S G E M P S T E D L V N L L P A
CDS:polyprotein [Hep Query	1887	L S P G A L V V G V V C A A I L R R H
	6000	CTCTCCCCTGGGCCCTAGTCGTGGGTCGTGCGCAGCGATACTGCGTCGGCA
Sbjct	4384	CTCTCCCCTGGGCCCTAGTCGTGGGTCGTGCGCAGCGATACTGCGTCGGCA
CDS:non-structural p	862	L S P G A L V V G V V C A A I L R R H
CDS:polyprotein [Hep Query	1907	G P G E G A V Q W M N R L I A F A S R
	6060	GGCCCAGGGAGGGGCTGTGCAGTGGATGAACCGGCTGATAGCGTTCGCTCGCG
Sbjct	4444	GGCCCAGGGAGGGGCTGTGCAGTGGATGAACCGGCTGATAGCGTTCGCTCGCG
CDS:non-structural p	882	G P G E G A V Q W M N R L I A F A S R
CDS:polyprotein [Hep Query	1927	N H V S P T H Y V P E S D A A A A R V T
	6120	AACCACGTCTCCCCACGCACTATGTGCCTGAGAGCGACGCTGCAGCACGTGTCAC
Sbjct	4504	AACCACGTCTCCCCACGCACTATGTGCCTGAGAGCGACGCTGCAGCACGTGTCAC
CDS:non-structural p	902	N H V S P T H Y V P E S D A A A A R V T
CDS:polyprotein [Hep Query	1947	I L S S L T I T Q L L K R L H Q W I N
	6180	ATCCTCTCTAGTCTTACCATCACTCAGCTGCTGAAGAGGCTTCACCAAGTGGATCAA
Sbjct	4564	ATCCTCTCTAGTCTTACCATCACTCAGCTGCTGAAGAGGCTTCACCAAGTGGATCAA
CDS:non-structural p	922	I L S S L T I T Q L L K R L H Q W I N
CDS:polyprotein [Hep Query	1967	D C S T P C S G S W L R D V W D W I C
	6240	GACTGCTCCACGCCATGCTCCGGCTCGTGGCTAAGAGATGTTGGGATTGGATATG
Sbjct	4624	GACTGCTCCACGCCATGCTCCGGCTCGTGGCTAAGAGATGTTGGGATTGGATATG
CDS:non-structural p	942	D C S T P C S G S W L R D V W D W I C
CDS:polyprotein [Hep Query	1987	V L T D F K T W L Q S K L L P R L P G
	6300	GTGTTGACTGATTCAAGACCTGGCTCCAGTCCAAGCTCCTGCCCGATTGCCGGG
Sbjct	4684	GTGTTGACTGATTCAAGACCTGGCTCCAGTCCAAGCTCCTGCCCGATTGCCGGG
CDS:non-structural p	962	V L T D F K T W L Q S K L L P R L P G
CDS:polyprotein [Hep Query	2007	P F F S C Q R G Y K G V W R G D G I M
	6360	CCCTCTTCTCATGTCAACGTGGTACAAGGGAGTCTGGCGGGCGACGGCATCAT
Sbjct	4744	CCCTCTTCTCATGTCAACGTGGTACAAGGGAGTCTGGCGGGCGACGGCATCAT
CDS:non-structural p	982	P F F S C Q R G Y K G V W R G D G I M
CDS:polyprotein [Hep Query	2027	T T C P C G A Q I T G H V K N G S M R
	6420	ACCACCTGCCATGTGGAGCACAGATCACCGGACATGTGAAAAACGGTTCCATGAG
Sbjct	4804	ACCACCTGCCATGTGGAGCACAGATCACCGGACATGTGAAAAACGGTTCCATGAG
CDS:non-structural p	1002	T T C P C G A Q I T G H V K N G S M R
CDS:polyprotein [Hep Query	2047	V G P R T C S N T W H G T F P I N A Y
	6480	GTGGGGCCTAGGACCTGTAGTAACACGTGGCATGGAACATTCCCCATTAACCGCGTA
Sbjct	4864	GTGGGGCCTAGGACCTGTAGTAACACGTGGCATGGAACATTCCCCATTAACCGCGTA

CDS:non-structural p	1022	V G P R T C S N T W H G T F P I N A Y
CDS:polyprotein [Hep Query	2067	T G P C T P S P A P N Y S R A L W R V
	6540	ACGGGCCCCCTGCACGCCCTCCCCGGCGCAAATTATTCTAGGGCGCTGTGGCGGGT
Sbjct	4924	ACGGGCCCCCTGCACGCCCTCCCCGGCGCAAATTATTCTAGGGCGCTGTGGCGGGT
CDS:non-structural p	1042	T G P C T P S P A P N Y S R A L W R V
CDS:polyprotein [Hep Query	2087	A E E Y V E V T R V G D F H Y V T G M
	6600	GCTGAGGAGTACGTGGAGGTTACGCGGGTGGGGGATTCCACTACGTGACGGCAT
Sbjct	4984	GCTGAGGAGTACGTGGAGGTTACGCGGGTGGGGGATTCCACTACGTGACGGCAT
CDS:non-structural p	1062	A E E Y V E V T R V G D F H Y V T G M
CDS:polyprotein [Hep Query	2107	T D N V K C P C Q V P A P E F F T E V
	6660	ACTGACAACGTAAAGTGCCCGTGTCAAGGTTCCGGCCCCGAATTCTTCACAGAAGT
Sbjct	5044	ACTGACAACGTAAAGTGCCCGTGTCAAGGTTCCGGCCCCGAATTCTTCACAGAAGT
CDS:non-structural p	1082	T D N V K C P C Q V P A P E F F T E V
CDS:polyprotein [Hep Query	2127	G V R L H R Y A P A C K P L L R E E V
	6720	GGGGTGCGGTTGCACAGGTACGCTCCAGCGTGCACAGCTCCCTACGGGAGGAGT
Sbjct	5104	GGGGTGCGGTTGCACAGGTACGCTCCAGCGTGCACAGCTCCCTACGGGAGGAGT
CDS:non-structural p	1102	G V R L H R Y A P A C K P L L R E E V
CDS:polyprotein [Hep Query	2147	F L V G L N Q Y L V G S Q L P C E P E
	6780	TTCCCTGGTCGGGCTCAATCAATACCTGGTTGGTCACAGCTCCATGCGAGCCGA
Sbjct	5164	TTCCCTGGTCGGGCTCAATCAATACCTGGTTGGTCACAGCTCCATGCGAGCCGA
CDS:non-structural p	1122	F L V G L N Q Y L V G S Q L P C E P E
CDS:polyprotein [Hep Query	2167	D V A V L T S M L T D P S H I T A E T
	6840	GACGTAGCAGTGCCTACTCCATGCTACCGGACCCCTCCCACATTACGGCGGAGAC
Sbjct	5224	GACGTAGCAGTGCCTACTCCATGCTACCGGACCCCTCCCACATTACGGCGGAGAC
CDS:non-structural p	1142	D V A V L T S M L T D P S H I T A E T
CDS:polyprotein [Hep Query	2187	K R R L A R G S P P S L A S S S A S Q
	6900	AAGCGTAGGCTGGCCAGGGATCTCCCCCTCCTGGCCAGCTCATCAGCTAGCCA
Sbjct	5284	AAGCGTAGGCTGGCCAGGGATCTCCCCCTCCTGGCCAGCTCATCAGCTAGCCA
CDS:non-structural p	1162	K R R L A R G S P P S L A S S S A S Q
CDS:polyprotein [Hep Query	2207	S A P S L K A T C T T R H D S P D A D
	6960	TCTGCGCCTCCTGAAGGCAACATGCACTACCCGTACGTACTCCCCGGACGCTGA
Sbjct	5344	TCTGCGCCTCCTGAAGGCAACATGCACTACCCGTACGTACTCCCCGGACGCTGA
CDS:non-structural p	1182	S A P S L K A T C T T R H D S P D A D
CDS:polyprotein [Hep Query	2227	I E A N L L W R Q E M G G N I T R V E
	7020	ATCGAGGCCAACCTCCTGTGGCGGCAGGAGATGGCGGGAACATACCCGCGTGG
Sbjct	5404	ATCGAGGCCAACCTCCTGTGGCGGCAGGAGATGGCGGGAACATACCCGCGTGG
CDS:non-structural p	1202	I E A N L L W R Q E M G G N I T R V E
CDS:polyprotein [Hep Query	2247	E N K V V I L D S F E P L Q A E E D E
	7080	GAAAATAAGGTAGTAATTGGACTCTTCGAGCCGCTCAAGCGGAGGAGGATGA
Sbjct	5464	GAAAATAAGGTAGTAATTGGACTCTTCGAGCCGCTCAAGCGGAGGAGGATGA

CDS:non-structural_P	1222	E N K V V I L D S E E P L Q A E E D E	Query	7200	ATATGGGCCACGCCGCACTTACACAATCTCCACACTGTTAGAAGTCCTGGAGAACCCGGA	subject	5584	ATATGGGCCACGCCGCACTTACACAATCTCCACACTGTTAGAAGTCCTGGAGAACCCGGA
CDS:non-structural_P	1242	E V S V P A E I L R R S R K E P R A M	Query	7140	GAGGTATCCCGTCCGGAGATCTGCCTGGAGGTCTCACAGAAATTCCCTCGAGGCAAT	subject	5524	GAGGTATCCCGTCCGGAGATCTGCCTGGAGGTCTCACAGAAATTCCCTCGAGGCAAT
CDS:non-structural_P	1262	I W A R P D Y N P P L L E S W K D P D	Query	2307	V P P V V H G C P L P A K A P P I P	subject	5644	GTCCTCTCCAGTACACGGCTCCAGCACTGGCTCCGGCCCTGGAGATCACCTGATAC
CDS:non-structural_P	1282	V P P V V H G C P L P A K A P P I P	Query	7260	GTCCTCTCCAGTACACGGCTCCAGCACTGGCTCCGGCCCTGGAGATCACCTGATAC	subject	5644	GTCCTCTCCAGTACACGGCTCCAGCACTGGCTCCGGCCCTGGAGATCACCTGATAC
CDS:non-structural_P	1302	P R R K R T V V L S E S T V S S A L A	Query	2327	P R R K R T V V L S E S T V S S A L A	subject	5720	CACAGGAAGAGACGGTCTCTGAGATCTGGCTCCAGAATTCACCTGGCTCTCTGGCC
CDS:non-structural_P	1322	L A T K T F G S S A V D S G T A	Query	7380	CTCGCCAACAGAACCTTCGGCCAGCTCATTCTGGCCGACGCTGACGCAAGCCG	subject	5764	CTGCCAACAGAACCTTCGGCCAGCTCATTCTGGCCGACGCTGACGCAAGCCG
CDS:non-structural_P	1342	A S P D Q P S D D G D A G S D V E S Y	Query	7440	GCTCTCTCTGACCACTCCAGCACTGGAGATCTGGCTCCAGCACTGGAGATCTGG	subject	5824	GCTCTCTCTGACCACTCCAGCACTGGAGATCTGGCTCCAGCACTGGAGATCTGG
CDS:non-structural_P	1362	S M P P L E G E P G D L S D G S W	Query	7500	TCCATGCCGCCCTGGAGGGAGCCGGGGATCTCCAGCACTGGAGCTCTG	subject	5884	TCCATGCCGCCCTGGAGGGAGCCGGGGATCTCCAGCACTGGAGCTCTG
CDS:non-structural_P	1382	T V S E E A S E D V V C C S M S Y T W	Query	2407	T V S E E A S E D V V C C S M S Y T W	subject	5944	ACCGTAAAGCGAGAGCTAGTGAAGAGACGCTCTGCTCTGCTAGTCAACATG
CDS:non-structural_P	1402	G A L I T P C A A E T K L P I N A L	Query	7620	GGCCGCCCTGACCACTGGCTGGAGAGAACCAAGCTGACCTACATGCACT	subject	6004	GGCCGCCCTGACCACTGGCTGGAGAGAACCAAGCTGACCTACATGCACT
CDS:non-structural_P	1427	N S L D R H H N L V Y A T T S R S A	Query	2427	G A L I T P C A A E T K L P I N A L	subject	6064	ACCTCTTGGCTCCGTCACCAACACTGGCTCTGCTAGTCAACATCTGGACAG
CDS:non-structural_P	1462	G A L I T P C A A E T K L P I N A L	Query	7680	ACCTCTTGGCTCCGTCACCAACACTGGCTCTGCTAGTCAACATCTGGACAG	subject	7680	ACCTCTTGGCTCCGTCACCAACACTGGCTCTGCTAGTCAACATCTGGACAG

CDS:non-structural p	1422	N S L L R H H N L V Y A T T S R S A S
CDS:polyprotein [Hep Query	2467 7740	R Q K K V T F D R L Q V L D D H Y R D CGGCAGAAGAAGGTACCTTGCACAGACTGCAGGTCTGGACGACCACTACGGGA
Sbjct	6124	CGGCAGAAGAAGGTACCTTGCACAGACTGCAGGTCTGGACGACCACTACGGGA
CDS:non-structural p	1442	R Q K K V T F D R L Q V L D D H Y R D
CDS:polyprotein [Hep Query	2487 7800	L K E M K A K A S T V K A K L L S V E CTCAAGGAGATGAAGGCGAAGGCCTCACAGTTAAGGCTAAACTCTATCCGTGGA
Sbjct	6184	CTCAAGGAGATGAAGGCGAAGGCCTCACAGTTAAGGCTAAACTCTATCCGTGGA
CDS:non-structural p	1462	L K E M K A K A S T V K A K L L S V E
CDS:polyprotein [Hep Query	2507 7860	A C K L T P P H S A R S K F G Y G A K GCCTGTAAGCTGACGCCACATTGGCCAGATCTAAATTGGCTATGGGGAAA
Sbjct	6244	GCCTGTAAGCTGACGCCACATTGGCCAGATCTAAATTGGCTATGGGGAAA
CDS:non-structural p	1482	A C K L T P P H S A R S K F G Y G A K
CDS:polyprotein [Hep Query	2527 7920	V R N L S S K A V N H I R S V W K D L GTCCCGAACCTATCCAGCAAGGCCGTTAACCATCCGCTCCGTGAGGACTT
Sbjct	6304	GTCCCGAACCTATCCAGCAAGGCCGTTAACCATCCGCTCCGTGAGGACTT
CDS:non-structural p	1502	V R N L S S K A V N H I R S V W K D L
CDS:polyprotein [Hep Query	2547 7980	E D T E T P I D T T I M A K N E V F C GAAGACACTGAGACACCAATTGACACCACATGGCAAAAAATGAGGTTTCTG
Sbjct	6364	GAAGACACTGAGACACCAATTGACACCACATGGCAAAAAATGAGGTTTCTG
CDS:non-structural p	1522	E D T E T P I D T T I M A K N E V F C
CDS:polyprotein [Hep Query	2567 8040	Q P E K G G R K P A R L I V F P D L G CAACCAGAGAAGGGGGCCGCAAGCCAGCTCGCCTATCGTATTCCAGATTGGG
Sbjct	6424	CAACCAGAGAAGGGGGCCGCAAGCCAGCTCGCCTATCGTATTCCAGATTGGG
CDS:non-structural p	1542	Q P E K G G R K P A R L I V F P D L G
CDS:polyprotein [Hep Query	2587 8100	R V C E K M A L Y D V V S T L P Q A V CGTGTGTGCGAGAAAATGCCCTTACGATGTGGCTCCACCCCTCAGGCCGT
Sbjct	6484	CGTGTGTGCGAGAAAATGCCCTTACGATGTGGCTCCACCCCTCAGGCCGT
CDS:non-structural p	1562	R V C E K M A L Y D V V S T L P Q A V
CDS:polyprotein [Hep Query	2607 8160	G S S Y G F Q Y S P G Q R V E F L V N GGCTCTTACAGGATTCCAATACTCTCCTGGACAGCGGGTCGAGTTCTGGTAA
Sbjct	6544	GGCTCTTACAGGATTCCAATACTCTCCTGGACAGCGGGTCGAGTTCTGGTAA
CDS:non-structural p	1582	G S S Y G F Q Y S P G Q R V E F L V N
CDS:polyprotein [Hep Query	2627 8220	W K A K K C P M G F A Y D T R C F D S TGGAAAGCGAAGAAATGCCCTATGGGCTTCGCATATGACACCCGCTTTGACTC
Sbjct	6604	TGGAAAGCGAAGAAATGCCCTATGGGCTTCGCATATGACACCCGCTTTGACTC
CDS:non-structural p	1602	W K A K K C P M G F A Y D T R C F D S
CDS:polyprotein [Hep Query	2647 8280	V T E N D I R V E E S I Y Q C C D L A GTCACTGAGAATGACATCCGTGTTGAGGAGTCAATCTACCAATGTTGTGACTTGGC
Sbjct	6664	GTCACTGAGAATGACATCCGTGTTGAGGAGTCAATCTACCAATGTTGTGACTTGGC

CDS:non-structural p	1622	V T E N D I R V E E S I Y Q C C D L A
CDS:polyprotein [Hep Query	2667	E A R Q A I R S L T E R L Y I G G P L
	8340	GAAGCCAGACAGGCCATAAGGTCGCTCACAGAGCGGCTTACATCGGGGGCCCCCT
Sbjct	6724	GAAGCCAGACAGGCCATAAGGTCGCTCACAGAGCGGCTTACATCGGGGGCCCCCT
CDS:non-structural p	1642	E A R Q A I R S L T E R L Y I G G P L
CDS:polyprotein [Hep Query	2687	N S K G Q N C G Y R R C R A S G V L T
	8400	AATTCTAAAGGGCAGAACTGCGGCTATGCCGGTGCCGCGAGCGGTGACTGAC
Sbjct	6784	AATTCTAAAGGGCAGAACTGCGGCTATGCCGGTGCCGCGAGCGGTGACTGAC
CDS:non-structural p	1662	N S K G Q N C G Y R R C R A S G V L T
CDS:polyprotein [Hep Query	2707	S C G N T L T C Y L K A A A A C R A A
	8460	AGCTCGGTAATACCTCACATGTTACTTGAAGGCCGTCGGCCTGTCGAGCTGC
Sbjct	6844	AGCTCGGTAATACCTCACATGTTACTTGAAGGCCGTCGGCCTGTCGAGCTGC
CDS:non-structural p	1682	S C G N T L T C Y L K A A A A C R A A
CDS:polyprotein [Hep Query	2727	L Q D C T M L V C G D D L V V V I C E S
	8520	CTCCAGGACTGCACGATGCTGTATGCCGGAGACGACCTTGTGTTATCTGTGAAAG
Sbjct	6904	CTCCAGGACTGCACGATGCTGTATGCCGGAGACGACCTTGTGTTATCTGTGAAAG
CDS:non-structural p	1702	L Q D C T M L V C G D D L V V V I C E S
CDS:polyprotein [Hep Query	2747	G T Q E D E A S L R A F T E A M T R Y
	8580	GGGACCCAAGAGGACGAGGCAGGCCCTACGGGCTTCACGGAGGCTATGACTAGATA
Sbjct	6964	GGGACCCAAGAGGACGAGGCAGGCCCTACGGGCTTCACGGAGGCTATGACTAGATA
CDS:non-structural p	1722	G T Q E D E A S L R A F T E A M T R Y
CDS:polyprotein [Hep Query	2767	A P P G D P P K P E Y D L E L I T S C
	8640	GCCCCCCCCTGGGGACCCGCCAACCGAGAATACGACTTGGAGTTGATAACATCATG
Sbjct	7024	GCCCCCCCCTGGGGACCCGCCAACCGAGAATACGACTTGGAGTTGATAACATCATG
CDS:non-structural p	1742	A P P G D P P K P E Y D L E L I T S C
CDS:polyprotein [Hep Query	2787	S N V S V A H D A S G K R V Y Y L T R
	8700	TCCAATGTGTCAGTCGCGCACGATGCATCTGGCAAAAGGGTGTACTATCTCACCCG
Sbjct	7084	TCCAATGTGTCAGTCGCGCACGATGCATCTGGCAAAAGGGTGTACTATCTCACCCG
CDS:non-structural p	1762	S N V S V A H D A S G K R V Y Y L T R
CDS:polyprotein [Hep Query	2807	P T T P L A R A A W E T A R H T P V N
	8760	CCCACCACCCCCTGCGGGCTGCGTGGGAGACAGCTAGACACACTCCAGTCAC
Sbjct	7144	CCCACCACCCCCTGCGGGCTGCGTGGGAGACAGCTAGACACACTCCAGTCAC
CDS:non-structural p	1782	P T T P L A R A A W E T A R H T P V N
CDS:polyprotein [Hep Query	2827	W L G N I I M Y A P T L W A R M I L M
	8820	TGGCTAGGCAACATCATCATGTATGCCAACCTTGTGGCAAGGATGATCCTGAT
Sbjct	7204	TGGCTAGGCAACATCATCATGTATGCCAACCTTGTGGCAAGGATGATCCTGAT
CDS:non-structural p	1802	W L G N I I M Y A P T L W A R M I L M
CDS:polyprotein [Hep Query	2847	H F F S I L L A Q E Q L E K A L D C Q
	8880	CATTCTTCTCCATCCTCTAGCTCAGGAACAACTTGAAAAAGCCCTAGATTGTCA
Sbjct	7264	CATTCTTCTCCATCCTCTAGCTCAGGAACAACTTGAAAAAGCCCTAGATTGTCA

CDS:non-structural p	1822	H F F S I L L A Q E Q L E K A L D C Q
CDS:polyprotein [Hep Query	2867 8940	Y G A C Y S I E P L D L P Q I I Q R L TACGGGGCCTGTTACTCCATTGAGCCACTTGACCTACCTCAGATCATTCAACGACT
Sbjct	7324	TACGGGGCCTGTTACTCCATTGAGCCACTTGACCTACCTCAGATCATTCAACGACT
CDS:non-structural p	1842	Y G A C Y S I E P L D L P Q I I Q R L
CDS:polyprotein [Hep Query	2887 9000	G L S A F S L H S Y S P G E I N R V A GGCCTTAGCGCATTTCACTCCATAGTTACTCTCCAGGTGAGATCAATAGGGTGGC
Sbjct	7384	GGCCTTAGCGCATTTCACTCCATAGTTACTCTCCAGGTGAGATCAATAGGGTGGC
CDS:non-structural p	1862	G L S A F S L H S Y S P G E I N R V A
CDS:polyprotein [Hep Query	2907 9060	C L R K L G V P P L R V W R H R A R S TGCCTCAGGAAACTTGGGGTACCGCCCTTGCAGTCTGGAGACATCGGGCAGAAG
Sbjct	7444	TGCCTCAGGAAACTTGGGGTACCGCCCTTGCAGTCTGGAGACATCGGGCAGAAG
CDS:non-structural p	1882	C L R K L G V P P L R V W R H R A R S
CDS:polyprotein [Hep Query	2927 9120	R A R L L S Q G G R A A T C G K Y L F CGCGCTAGGCTACTGTCCCAGGGGGGAGGGCTGCCACTTGTGGCAAGTACCTCTT
Sbjct	7504	CGCGCTAGGCTACTGTCCCAGGGGGGAGGGCTGCCACTTGTGGCAAGTACCTCTT
CDS:non-structural p	1902	R A R L L S Q G G R A A T C G K Y L F
CDS:polyprotein [Hep Query	2947 9180	W A V R T K L K L T P I P A A S Q L D TGGGCAGTAAGGACCAAGCTCAAACACTCCAATCCGGCTCGTCCCAGTTGGA
Sbjct	7564	TGGGCAGTAAGGACCAAGCTCAAACACTCCAATCCGGCTCGTCCCAGTTGGA
CDS:non-structural p	1922	W A V R T K L K L T P I P A A S Q L D
CDS:polyprotein [Hep Query	2967 9240	S S W F V A G Y S G G D I Y H S L S R TCCAGCTGGTTCGTTGCTGGTTACAGCGGGGAGACATATATCACAGCCTGTCG
Sbjct	7624	TCCAGCTGGTTCGTTGCTGGTTACAGCGGGGAGACATATATCACAGCCTGTCG
CDS:non-structural p	1942	S S W F V A G Y S G G D I Y H S L S R
CDS:polyprotein [Hep Query	2987 9300	R P R W F M W C L L L S V G V G I Y CGACCCCGCTGGTCATGTGGTGCCTACTCCTACTTCTGTAGGGTAGGCATCTA
Sbjct	7684	CGACCCCGCTGGTCATGTGGTGCCTACTCCTACTTCTGTAGGGTAGGCATCTA
CDS:non-structural p	1962	R P R W F M W C L L L S V G V G I Y
CDS:polyprotein [Hep Query	3007 9360	L P N R CTCCCCAACCGATGAACGGGGAGCTAAACACTCCAGGCCAATAGGCCATCCTG 9
Sbjct	7744	CTCCCCAACCGATGAACGGGGAGCTAAACACTCCAGGCCAATAGGCCATCCTG 7
CDS:non-structural p	1982	L P N R

Score = 696 bits (362), Expect = 0.0
 Identities = 376/376 (100%), Gaps = 0/376 (0%)
 Strand=Plus/Plus

Query	2	CCAGCCCCGATTGGGGCGACACTCCACCATAGATCACTCCCTGTGAGGAAC	TAC
Sbjct	2	CCAGCCCCGATTGGGGCGACACTCCACCATAGATCACTCCCTGTGAGGAAC	TAC
Query	62	CTTCACGCAGAAAGCGTCTAGCCATGGCGTTAGTATGAGTGTGTCGTGCAG	CCTCCAGG
Sbjct	62	CTTCACGCAGAAAGCGTCTAGCCATGGCGTTAGTATGAGTGTGTCGTGCAG	CCTCCAGG
Query	122	CCCCCTCCCGGGAGAGCCATAGTGGTCTGCGAACCGGTGAGTACACCGGA	ATTGCC
Sbjct	122	CCCCCTCCCGGGAGAGCCATAGTGGTCTGCGAACCGGTGAGTACACCGGA	ATTGCC
Query	182	ACGACCGGGTCCTTCTTGGATCAACCCGCTCAATGCCTGGAGATTGGCGT	GCCC
Sbjct	182	ACGACCGGGTCCTTCTTGGATCAACCCGCTCAATGCCTGGAGATTGGCGT	GCCC
Query	242	CGAGACTGCTAGCCGAGTAGTGGTGGTGC	GAAAGGCCTTGTGGTACTGCCTGATA
Sbjct	242	CGAGACTGCTAGCCGAGTAGTGGTGGTGC	GAAAGGCCTTGTGGTACTGCCTGATA
CDS:polyprotein [Hep	1		M S T N P K
Query	302	TGCTTGCAGTGCCCCGGGAGGTCTCGTAGACCGTGCACCATGAGCACGA	ATCCTAA
Sbjct	302	TGCTTGCAGTGCCCCGGGAGGTCTCGTAGACCGTGCACCATGAGCACGA	ATCCTAA
CDS:core-neo fusion	1		M S T N P K
CDS:polyprotein [Hep	8	Q R K T K	
Query	362	TCAAAGAAAAACCAAA	377
Sbjct	362	TCAAAGAAAAACCAAA	377
CDS:core-neo fusion	8	Q R K T K	

Score = 189 bits (98), Expect = 2e-43
 Identities = 98/98 (100%), Gaps = 0/98 (0%)
 Strand=Plus/Plus

Query	9508	GGTGGCTCCATCTTAGCCCTAGTCACGGCTAGCTGTGAAAGGTCCGTGAGCCGCTTGACT	9567
Sbjct	7892	GGTGGCTCCATCTTAGCCCTAGTCACGGCTAGCTGTGAAAGGTCCGTGAGCCGCTTGACT	7951
Query	9568	GCAGAGAGTGCTGATACTGGCCTCTGCAGATCAAGT	9605
Sbjct	7952	GCAGAGAGTGCTGATACTGGCCTCTGCAGATCAAGT	7989

CPU time: 0.15 user secs. 0.04 sys. secs 0.19 total secs.